



VIDEO CASSETTE RECORDER **SERVICE MANUAL**

MODELS : AF-291

CAUTION

BEFORE SERVICING THE UNIT, READ THE "SAFETY PRECAUTIONS"
IN THIS MANUAL.

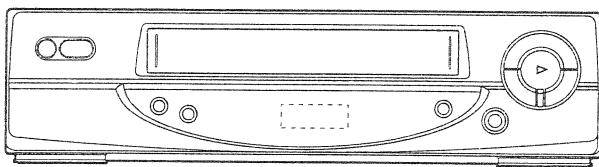


TABLE OF CONTENTS

SECTION 1 SUMMARY

KEY TO ABBREVIATIONS	1-1
IMPORTANT SAFETY PRECAUTIONS	1-2
• Precautions During Servicing	
SAFETY CHECK AFTER SERVICING	1-3
• Insulation resistance test	
• Dielectric strength test	
• Clearance distance	
• Leakage current test	
SPECIFICATIONS	1-4
LOCATION OF CUSTOMER CONTROLS	1-5

SECTION 2 CABINET & MAIN CHASSIS

SELF DIAGNOSTIC	2-1
SERVICE METHOD	2-2
Electrical Part	2-2
EXPLODED VIEWS	2-3
1. Cabinet & Main Frame Section	2-3
2. Packing & Accessory Section	2-4
3. Remote Control Section	2-5

SECTION 3 ELECTRICAL

ELECTRICAL ADJUSTMENT POINTS ARRANGEMENT	3-1
ELECTRICAL ADJUSTMENT PROCEDURES	3-2
1. Servo Circuit	3-2
BLOCK & CIRCUIT DIAGRAMS	3-3
1. Power Block Diagram	3-3
1. Power Circuit Diagram	3-5
2. Tuner/IF Block Diagram	3-7
2. Tuner/IF Circuit Diagram	3-9
3. Y/C Block Diagram	3-11
3. A/V Circuit Diagram	3-13
4. Audio Block Diagram	3-16
5. SCART & SRS Block Diagram	3-17

5. SCART & SRS Circuit Diagram	3-19
6. System Block Diagram	3-21
6. System Circuit Diagram	3-23
7. SHUTTLE & KEY Circuit Diagram	3-25
8. LED CLOCK Circuit Diagram	3-27
PRINTED CIRCUIT BOARD DIAGRAMS	3-29
1. MAIN P.C.Board	3-29
2. LED CLOCK P.C.Board	3-31
3. SHUTTLE & KEY P.C.Board	3-32

SECTION 4 MECHANISM

NOTE) The table of contents for this section is edited separately.

SECTION 5 REPLACEMENT PARTS LIST

• Mechanical Section	5-1
• Electrical Section	5-6

SECTION1 SUMMARY KEY TO ABBREVIATIONS

A	AC	:Alternating Current	LPF	:Low Pass Filter	
	ACC	:Automatic Color Control	MAX	:Maximum	
	ACSS	:Automatic Channel Setting System	MD	:Modulator	
	ADJ	:Adjust	MECHA.CTL	:Mechanism Control	
	A/E	:Audio Erase	MIC	:Microphone	
	AFC	:Automatic Frequency Control	MIN	:Minimum	
	AFT	:Automatic Fine Tuning	MIX	:Mixer, Mixing	
	AGC	:Automatic Gain Control	M.M	:Monostable, Multivibrator	
	A.H.SW	:Audio Head Switch	MMV	:Mono Multi Vibrator	
	ALC	:Automatic Level Control	MOD	:Modulation, Modulator	
B	AM	:Amplitude Modulation	MODEM	:Modulator-Demodulator	
	AMP	:Amplifier	MPX	:Multiplex	
	ANT	:Antenna	N	NR	:Noise Reduction
	APC	:Automatic Phase Control	O	OSC	:Oscillator
	ASSY	:Assembly	OSD	:On Screen Display	
	AUX	:Auxiliary	P	PB	:Playback
	B	:Base	PCB	:Printed Circuit Board	
	BGP	:Burst Gate Pulse	PCTL	:Power Control	
	BPF	:Bandpass Filter	PRE AMP	:Preamplifier	
	BS	:Broadcasting Satellite	P.F	:Power Failure	
C	BW or B/W	:Black and White	PG	:Pulse Generator	
	C	:Capacitor, Chroma, Collector	PLL	:Phase Locked Loop	
	CAN	:Cancel	PREM.DET	:Premiere Detect	
	CAP	:Capstan	PP	:Peak-to-Peak	
	CAPBRK	:Capstan Brake	PS	:Phase Shift	
	CAPRVS	:Capstan Reverse	PWM	:Pulse Width Modulation	
	CATV	:Cable Television	PWR CTL	:Power Control	
	CBA	:Circuit Board Assembly	Q	Q	:Transistor
	CCD	:Charge Coupled Device	QH	:Quasi Horizontal	
	C.CTL	:Chro Control, Capstan Control	OSR	:Quick Setting Record	
D	CFG	:Capstan Frequency Generator	QTR	:Quick Timer Record	
	CHROMA	:Chrominance	QV	:Quasi Vertical	
	CNR	:Chroma Noise Reduction	R	R	:Resistor, Right
	COMB	:Combination	RE(or RC)	:Remoon, Receiver	
	COMP	:Comparator	REC	:Recording	
	CONV	:Converter	REC S 'H'	:Record Start 'High'	
	C.ROT SW	:Color Rotary Switch	REF	:Reference	
	CS	:Chip Select	REG	:Regulated, Regulator	
	C.SYNC	:Composite Synchronization	REMOCON	:Remote Control(unit)	
	CTL DIV	:Control Divide	RF	:Radio Frequency	
E	CUR	:Current	R/P	:Record/Playback	
	CYL	:Cylinder	RTC	:Real Time Counter	
	D	:Drum, Digital, Diode, Drain	S	S	:Serial
	D.ADJ	:Drum Adjust	S.ACCEL	:Slow Accel	
	DC	:Direct Current	SAOP	:Second Audio Program	
	D.CTL	:Drum Control	SC	:Scart, Simulcast	
	DEM.O	:Demodulator	S.DET	:Secam Detect	
	DET	:Detector	SH	:Shift	
	DEV	:Deviation	SHARP	:Sharpness	
	DHP	:Double High Pass	SIF	:Sound Intermediate Frequency	
F	DIGITRON	:Digital Display Tube	SLD	:Side Locking	
	DL	:Delay line	S/N	:Signal to Noise Ratio	
	DOC	:Drop Out Compensator	SP	:Standard Play	
	DUB	:Dubbing	ST	:Stere	
	D.V.SYNC	:Dummy Vertical Synchronization	SUB	:Subtract, Subcarrier	
	E	:Emitter	SW or SW	:Switch	
	EE	:Electric to Electric	SYNC	:Synchronization	
	EMPH	:Emphasis	SYSCON	:System Control	
	ENA	:Enable	T	T	:Coil
	ENV	:Envelope	TP	:Test Point	
G	EP	:Extended Play	TR	:Transistor	
	EO	:Equalizer	TRK	:Tracking	
	EXP	:Expander	TRANS	:Transformer	
	F	:Fuse	TU	:Tuner, Take up	
	FB	:Feed Back	U	UHF	:Ultra High Frequency
	FBC	:Feed Back Clamp	UNREG	:Unregulated	
	FE	:Full Erase	V	V	:Volt, Vertical
	FG	:Frequency Generator	VA	:Always Voltage	
	FL	:Filter	VCO	:Voltage Controlled Oscillator	
	FM	:Frequency Modulation	VGC	:Voltage Gain Control	
H	F.R	:Front/Rear	VHF	:Very High Frequency	
	FS	:Frequency Synthesizer	V.H.SW	:Video Head Switch	
	FSC	:Subcarrier Frequency	VISS	:VHS Index Search	
	F.V	:Frequency Voltage	VPS	:Video Program System	
	GEN	:Generator	VR	:Variable Resistor or Volume	
	H	:High, Horizontal	V.SYNC	:Vertical Synchronization	
	IC	:Integrated Circuit	VTG	:Voltage	
	IF	:Intermediate Frequency	VV	:Voltage to Voltage	
	INS	:Insert	YXO	:Voltage X-tal Oscillator	
	I	L	:Low, Left, Coil	W	W
LD		:LED	WHT	:White	
LD.VTG.CTL		:Loading Voltage Control	W/O	:With out	
LECHA		:Letter Character	X	X-TAL	:Crystal
LM		:Level Meter	Y	Y/C	:Luminance/Chrominance
LP		:Long Play	YNR	:Luminance Noise Reduction	
			Z	ZD	:Zener Diode

IMPORTANT SAFETY PRECAUTIONS

Prior to shipment from the factory, the products are strictly inspected to conform with the recognized product safety and electrical codes of the countries in which they are to be sold. However, in order to maintain such compliance, it is equally important to implement the following precautions when a set is being serviced.

• Precautions during Servicing

1. Locations requiring special caution are denoted by labels and inscriptions on the cabinet, chassis and certain parts of the product. When performing service, be sure to read and comply with these and other cautionary notices appearing in the operation and service manuals.

2. Parts identified by the Δ symbol and shaded (■) parts are critical for safety. Replace only with specified part numbers.

Note : Parts in this category also include those specified to comply with X-ray emission standards for products using cathode ray tubes and those specified for compliance with various regulations regarding spurious radiation emission.

3. Use Specified internal wiring. Note especially:

- 1) Double insulated wires
- 2) High voltage leads

4. Use specified insulating materials for hazardous live parts. Note especially:

- 1) Insulation Tape
- 2) PVC tubing
- 3) Spacers
- 4) Insulation sheets for transistor

5. Observe that wires do not contact heat producing parts (heatsinks, oxide metal film resistors, fusible resistors, etc.)

6. Check that replaced wires do not contact sharp edged or pointed parts.

7. 1) When a power cord has been replaced, check that A mark is made on the cord, under strain, near the aperture, and the flexible cord is subjected 100 times to a pull of 40N for a duration of 1 second each.
- 2) During the test, the cord shall not be displaced by more than 2mm

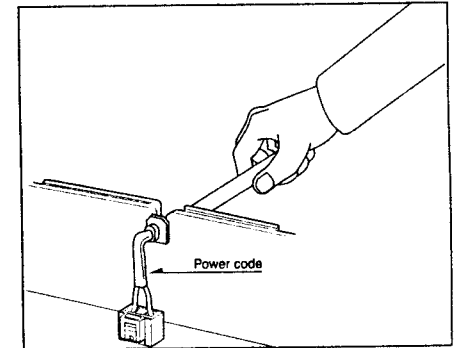


Fig. 1

8. Also check areas surrounding repaired locations.

SAFETY CHECK AFTER SERVICING

Examine the area surrounding the repaired location for damage or deterioration. Observe that screws, parts and wires have been returned to original positions. Afterwards, perform the following tests and confirm the specified values in order to verify compliance with safety standards.

- **Insulation resistance test**

confirm the specified insulation resistance or greater between power cord plug prongs and externally exposed parts of the set (RF terminals, antenna terminals, video and audio input and output terminals, incrophone jacks, earphone jacks, etc.) See table below.

- Dielectric strength test

Confirm specified dielectric strength or greater between power cord prongs and exposed accessible parts of the set (RF terminals, antenna terminals, video and audio input and output terminals, incrophone jacks, earphone jacks, etc.) See table below.

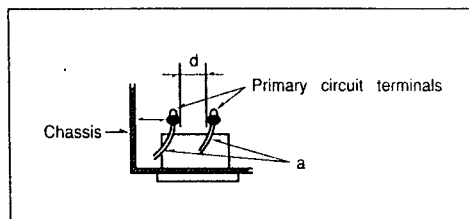


Fig. 2

- Clearance distance

When replacing primary circuit components, confirm specified clearance distance (d), (d') between soldered terminals, and between terminals and surrounding metallic parts. See table below.

Table 1 : Ratings for selected areas

AC Line Voltage	Region	Insulation Resistance	Dielectric Strength	Clearance Distance(d),(d)
*100 to 130 V 200 to 240 V	Europe Australia	IV 10 MΩ/500 V DC	4kV 1 minute	≥ 6mm(d) ≥ 8mm(d) (a Power cord)

* Class II model only.

Note. This table is unofficial and for reference only. Be sure to confirm the precise values for your particular country and locality.

- **Leakage Current test**

Confirm specified or lower leakage current between B(earth ground, power cord plug prongs) and externally exposed accessible parts (RF terminals, antenna terminals, video and audio input and output terminals, microphone jacks, earphone jacks, etc.)

Measuring Method: (Power ON)

Insert load Z between B(earth ground, power cord plug prongs) and exposed accessible parts. Use an AC voltmeter to measure across both terminals of load Z. See figure and following table.

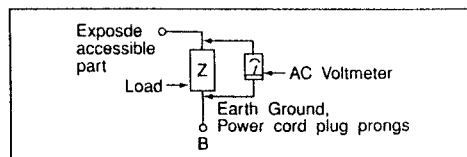


Fig. 3

Table 2: Leakage current ratings for selected areas.

AC Line Voltage	Region	Load Z	Leakage Current(I)	Earth Ground (B) to :
100 to 130 V	Europe	 2k Ω	i $\leq$ 0.7mA peak i $\leq$ 2mA DC	Antenna earth terminals
200 to 240 V	Australia	 50k Ω	i $\leq$ 0.7mA peak i $\leq$ 2mA DC	Other terminals

Note. This table is for IEC member only. Be sure to confirm the precise values for your particular country and locality.

SPECIFICATIONS

General

Power	: 200-240V~, 50Hz
Power consumption	: Approx. 18 watts
Video Head system	: Rotary 2 heads, helical scanning system(AC280Y) Double azimuth 4heads(AC480Y)
Tape speed	: 23.39 mm/sec (SP mode)11.69 mm/sec(LP mode)
Tape format	: Tape width 1/2" (12.7 mm high density VHS tape)
Maximum recording time	: 4 hours in SP mode/8 hours in LP mode (with E-240 tape)
Rewind time	: Approx. 150 sec. (with E-180 tape)
Dimensions (W X H X D)	: 14.2" X 3.5" X 11.7" (360 x 94 x 270 mm)
Weight	: 9.0 lbs. (3.4 kg)
Operating temperature	: 41°F-95°F (5°C-35°C)
Operating humidity	: Less than 80%
Timer	: 24 hours display type

Video

Television system	: CCIR standard (625 lines, 50 fields) PAL/SECAM colour signal
Recording format	: PAL B/G, SECAM D/K
Input level	: VIDEO IN (SCART type) 1.0 Vp-p, 75 ohm, unbalanced
Output level	: VIDEO OUT (SCART type) 1.0 Vp-p, 75 ohm, unbalanced
Signal to noise ratio	: More than 43 dBm
RF modulator	: UHF channels 22-68(adjustable)

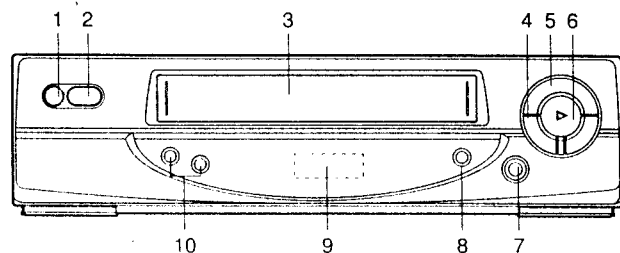
Audio

Audio Input level	: AUDIO IN (SCART type) -5.0dBm, more than 10kΩ
Output level	: AUDIO OUT (SCART type) -5.0dBm, less than 1kΩ
Audio track	Mono track
Audio frequency response	: 100Hz-10kHz(-6/+3dBm)
Audio signal to noise ratio	: More than 70 dBm

- Design and specifications are subject to change without notice.

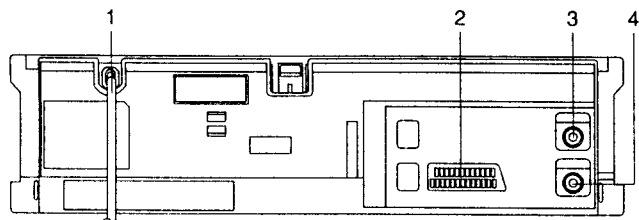
LOCATION OF CUSTOMER CONTROLS

FRONT



- | | |
|-------------------------|---------------------------------|
| 1. POWER | 6. FF |
| 2. STOP & EJECT | 7. P/STILL |
| 3. CASSETTE COMPARTMENT | 8. REC/QSR |
| 4. REW | 9. VCR DISPLAY |
| 5. PLAY | 10. CHANNEL PROGRAMME SELECTORS |

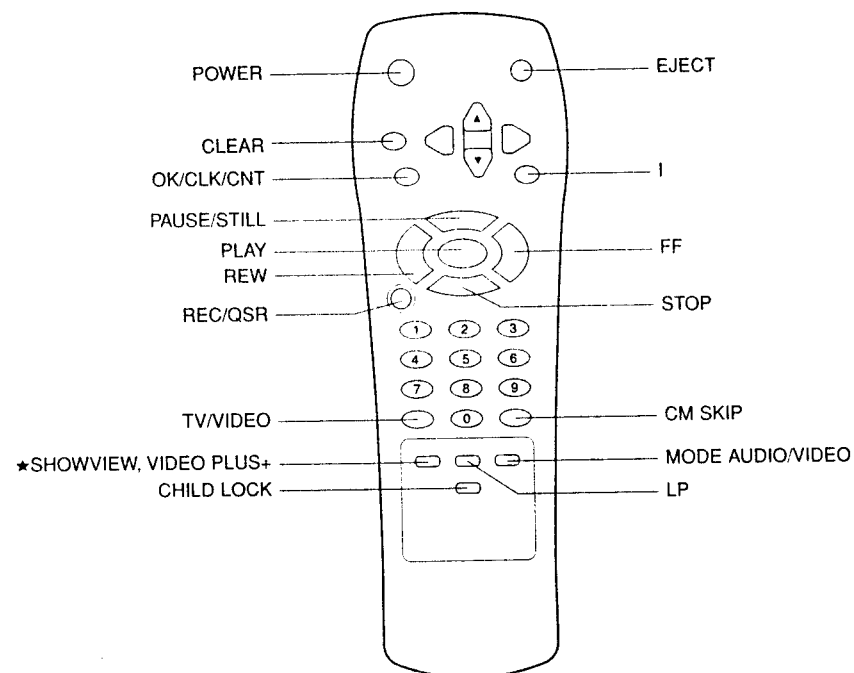
REAR



- | | |
|---------------|-----------|
| 1. MAINS LEAD | 3. AERIAL |
| 2. EURO AV1 | 4. RF.OUT |

REMOTE CONTROL

★OPTION PART



SECTION 2 CABINET & MAIN CHASSIS SELF DIAGNOSTIC

1.SELF DIAGNOSTIC OVERVIEW

Provides service personnel a convenient service aid by a visual display of error codes generated by the u-com and displayed on the digitron.

2.OPERATIONAL PROCEDURE :

With the remote control, press and hold the "MENU" key until the word MENU appears in the fluorescent display ;Then press 4, 3, 2, 1 and then "ENTER". Self diagnostic procedure will sequence through the 8 step procedure. If an error is detected, a code number will flash approx 5 times then will return to it's initial mode of operation.

3.NOTES :

1. Error codes will not be stored, program must be re-initialized as described in the preceding step.
2. Pin numbers refer to IC501 u-com, unless otherwise stated.

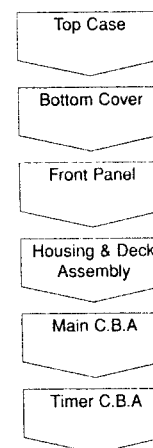
DISPLAY	DESCRIPTION	INPUT SIGNAL	CIRCUIT STATUS	SERVICE POINTS
"D1"	•Tape Loading Error	•Mode SW Pos. S1, S2, S3, S4 Pins:77, 76, 75, 74 •Load Motor Pins : 20 (+) Pins : 19 (-)	•Mode SW Position not changed within 6 seconds after cassette loading attempt.	•Loading motor, mech. problems gears, timing •Mode SW Position
"D2"	•Tape Loading Error	•Mode SW Pos. S1, S2, S3, S4 Pins:77, 76, 75, 74 •Load Motor Pins : 20 (+) Pins : 19 (-)	•Mode SW Position not changed within 6 seconds after cassette loading attempt.	•Mode SW Contacts
"D3"	•CST Loading Error	•Mode SW Pos. S1, S2, S3, S4 Pins:77, 76, 75, 74 •Load Motor Pins : 20 (+) Pins : 19 (-)	•Mode SW Position not changed within 6 seconds after cassette loading attempt.	•Mode SW Contacts
"D4"	•CST Loading Error	•Mode SW Pos. S1, S2, S3, S4 Pins:77, 76, 75, 74 •Load Motor Pins : 20 (+) Pins : 19 (-)	•CST SW must be activated with-in 3 seconds, otherwise unit shut down will occur.	•CST SW or Connector Contacts
"D5"	•DRUM Moter Error	•Head SW(30Hz) Pulses Pin24	•Drum Motor(Slow Start) •Motor must be up to speed with-in 3 seconds of operation	•Drum Motor and Control Circuits
"D6"	•Reel Rotational Error	•Supply Take-up Reel Pulses, Pins 4,5	•CFG Signal present, but take-up pulses are missing. (Capstan motor running)	•Capstan belt •Idler and reel gears damaged •ST/U Sensors
"D7"	•Capstan Motor Error	•Capstan FG Pulses	•No CFG Signal	•Capstan control ckt. •Moto assm. •IC501 Ckt.
"F1"	•Tuner Signal Input	•C-Sync Pin 87	•Composite Sync not detected, RF or Video Signal loss.	•Loss of C-sync Tuner Line Video Path

VCR should be in PB mode for D5, D6 and D7. Stop mode for F1, cassette loading D3, D4 and tape loading D1 and D2.

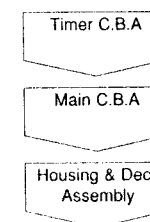
SERVICE METHOD

Electrical Part

(1) Disassembly Flow



(2) Re-assembly Flow for service like Fig. 2-1

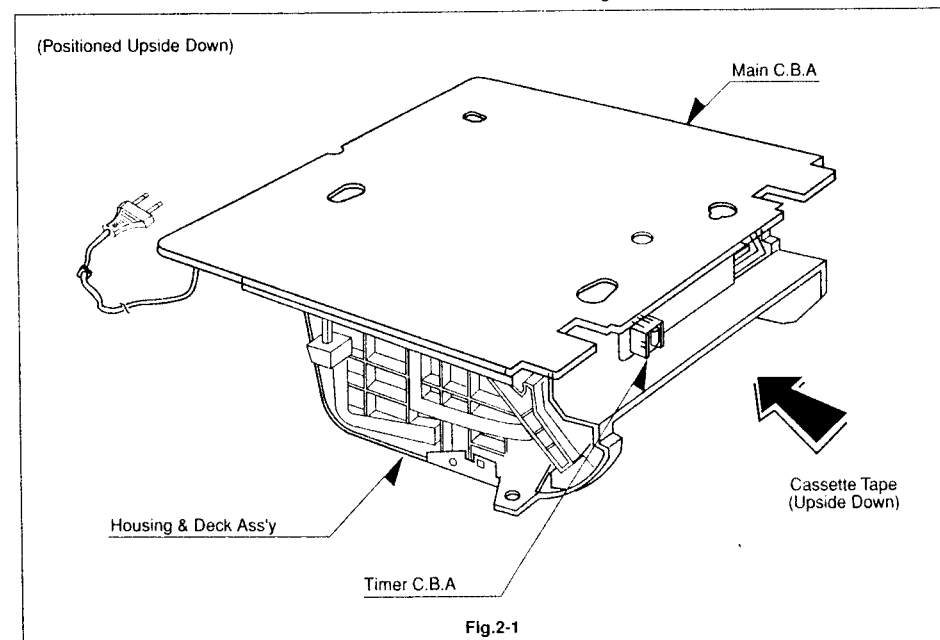


(3) To check and replace Electrical parts

- 1 Disassemble the unit according to No.1) Disassembly Flow.
- 2 Re-assemble the unit according to No.2) Re-assembly Flow.
- 3 Place the unit like Fig. 2-1
- 4 Check and replace Electrical parts.

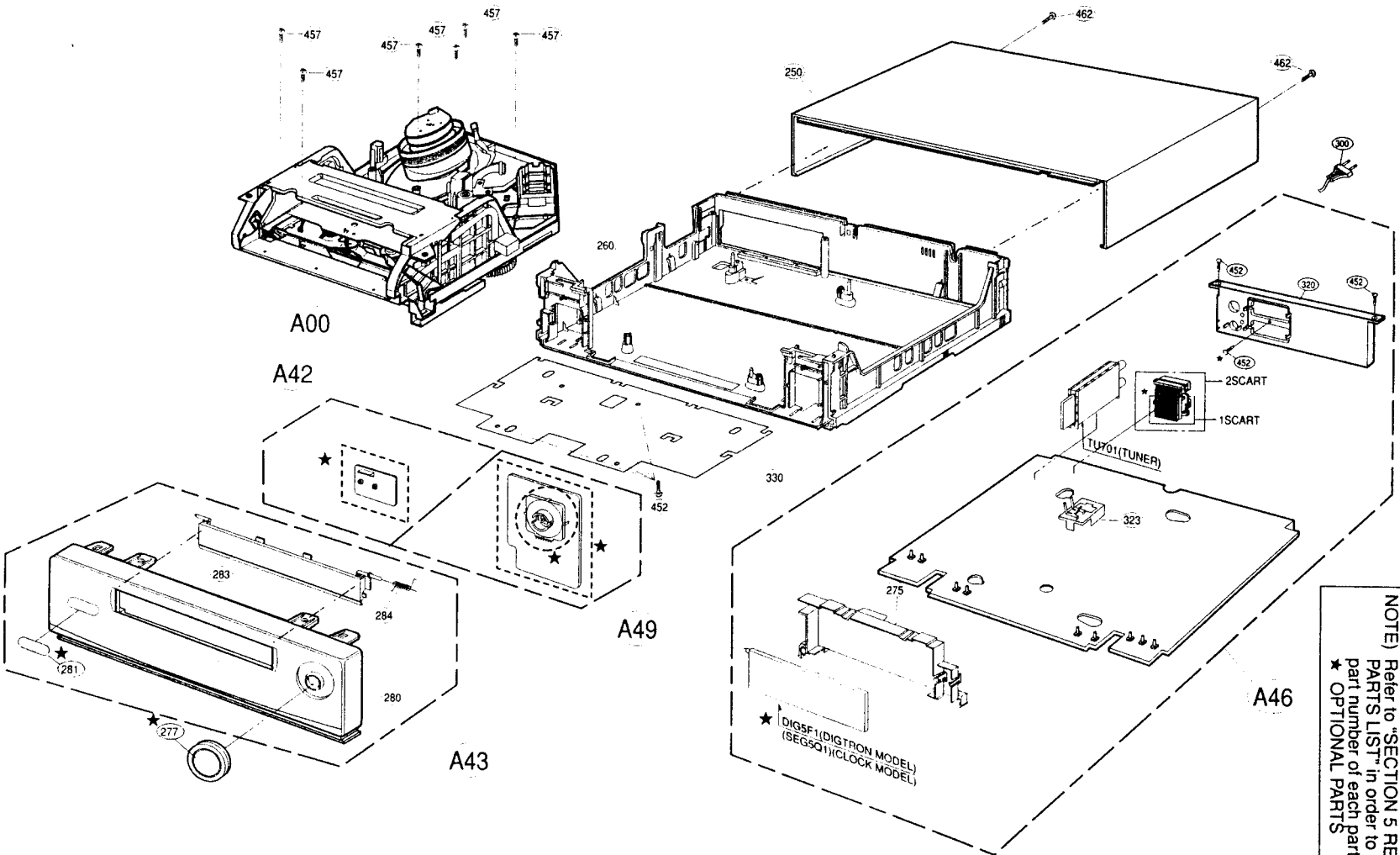
NOTE :

- 1 Insert Video Cassette Tape inversely like Fig. 2-1 to check and replace defective parts.
- 2 In disassembling and reassembling, be careful not to damaged CST switch.



EXPLODED VIEWS

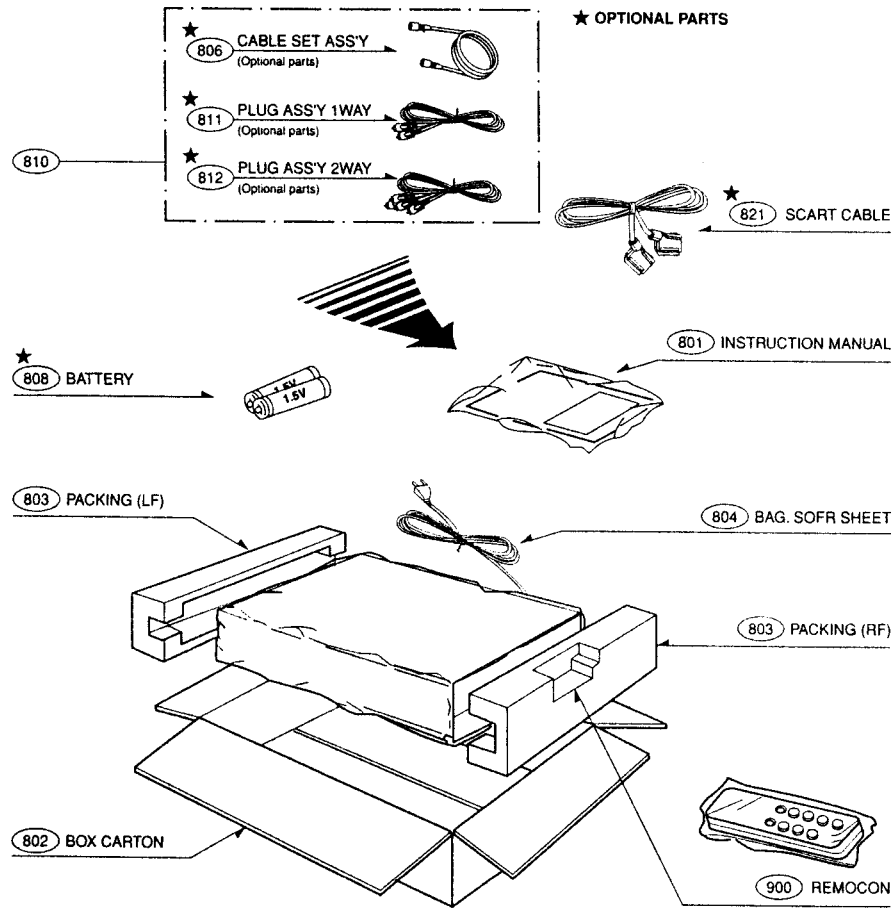
1. Cabinet and Main Frame Section



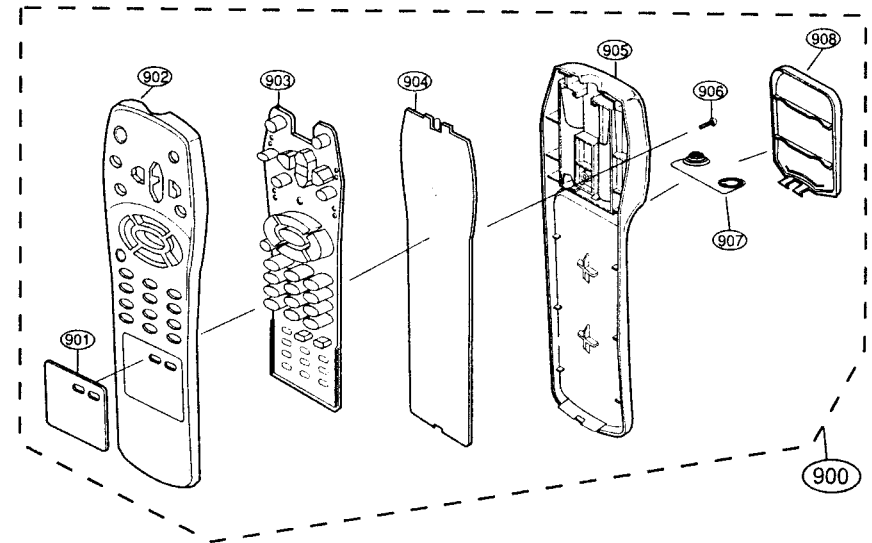
NOTE) Refer to "SECTION 5 REPLACEMENT PARTS LIST" in order to look for the part number of each part.
★ OPTIONAL PARTS

2.Packing Accessory Section

NOTE) Refer to "SECTION REPLACEMENT PARTS LIST" in order to look for the part number of each part.

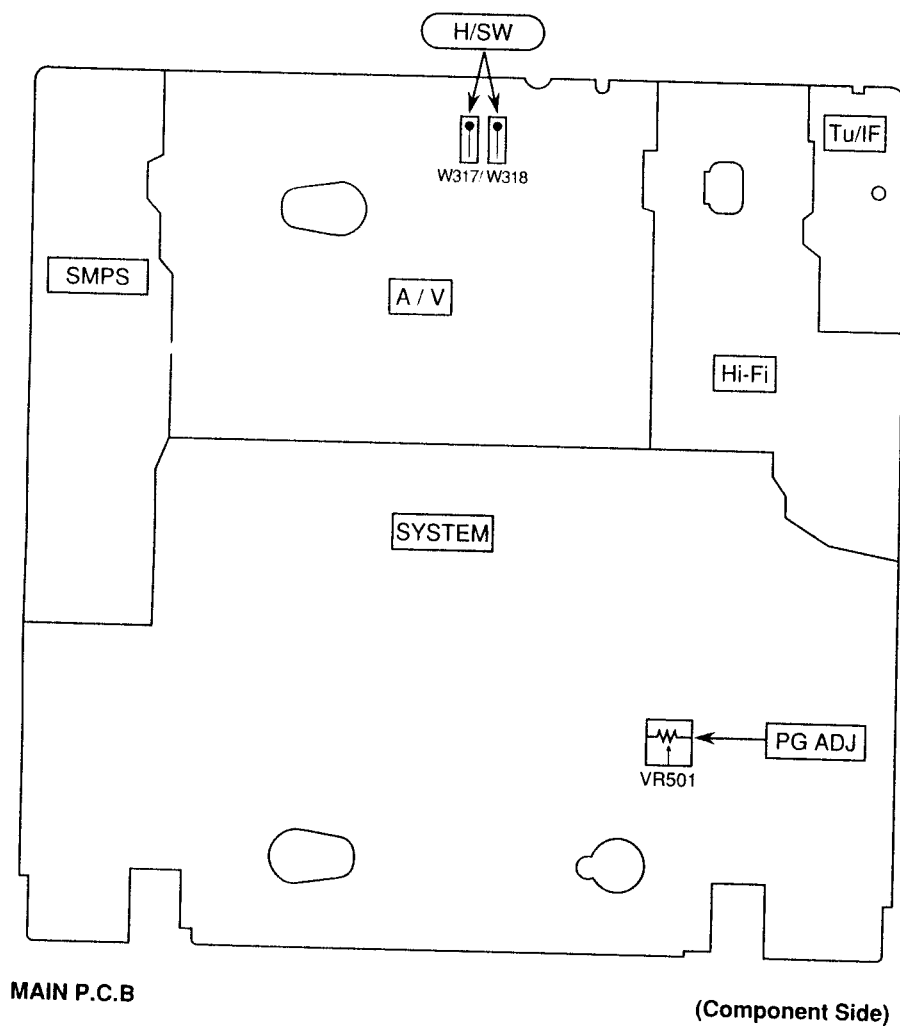


3.Remote Control Section



SECTION 3 ELECTRICAL ELECTRICAL ADJUSTMENT POINTS ARRANGEMENT

○ : Measurement point
□ : Adjustment point



ELECTRICAL ADJUSTMENT PROCEDURES

1. Servo Adjustment

- 1) PG Adjustment
 - Test Equipment

- a) OSCILLOSCOPE
- b) PAL TEST TAPE (VHS SP)

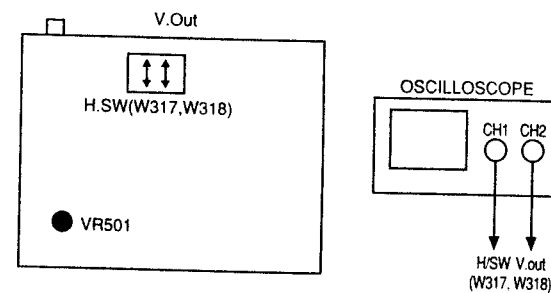
- Adjustment And Specification

MODE	MEASUREMENT POINT	ADJUSTMENT POINT	SPECIFICATION
PLAY	V.Out H/SW(W317, W318)	VR501	$6.5 \pm 0.5H$

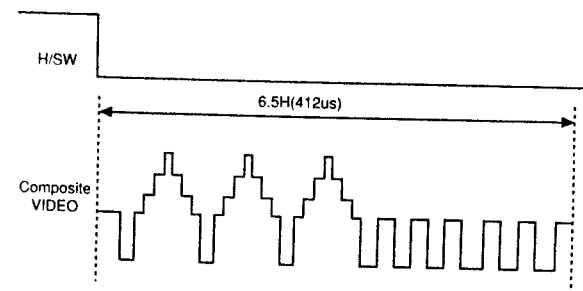
• Adjustment Procedure

- a) Insert the PAL SP Test Tape and play.
Note - Adjust the distance of X, pressing the Tracking(+) or Tracking(-) when the "ATR" is blink after the PAL SP Test Tape is inserted.
- b) Connect the CH1 of the oscilloscope to the H/SW(W317, 318) and CH2 to the Video Out for the VCR.
- c) Trigger the mixed Video Signal of CH2 to the CH1 H.SW(W317, W318), and then check the distance (time difference), which is from the selected A(B) Head point of the H.SW(W317, W318) signal to the starting point of the vertical synchronized signal, to $6.5H \pm 0.5H$ ($412\mu s$, $1H=63.5\mu s$).

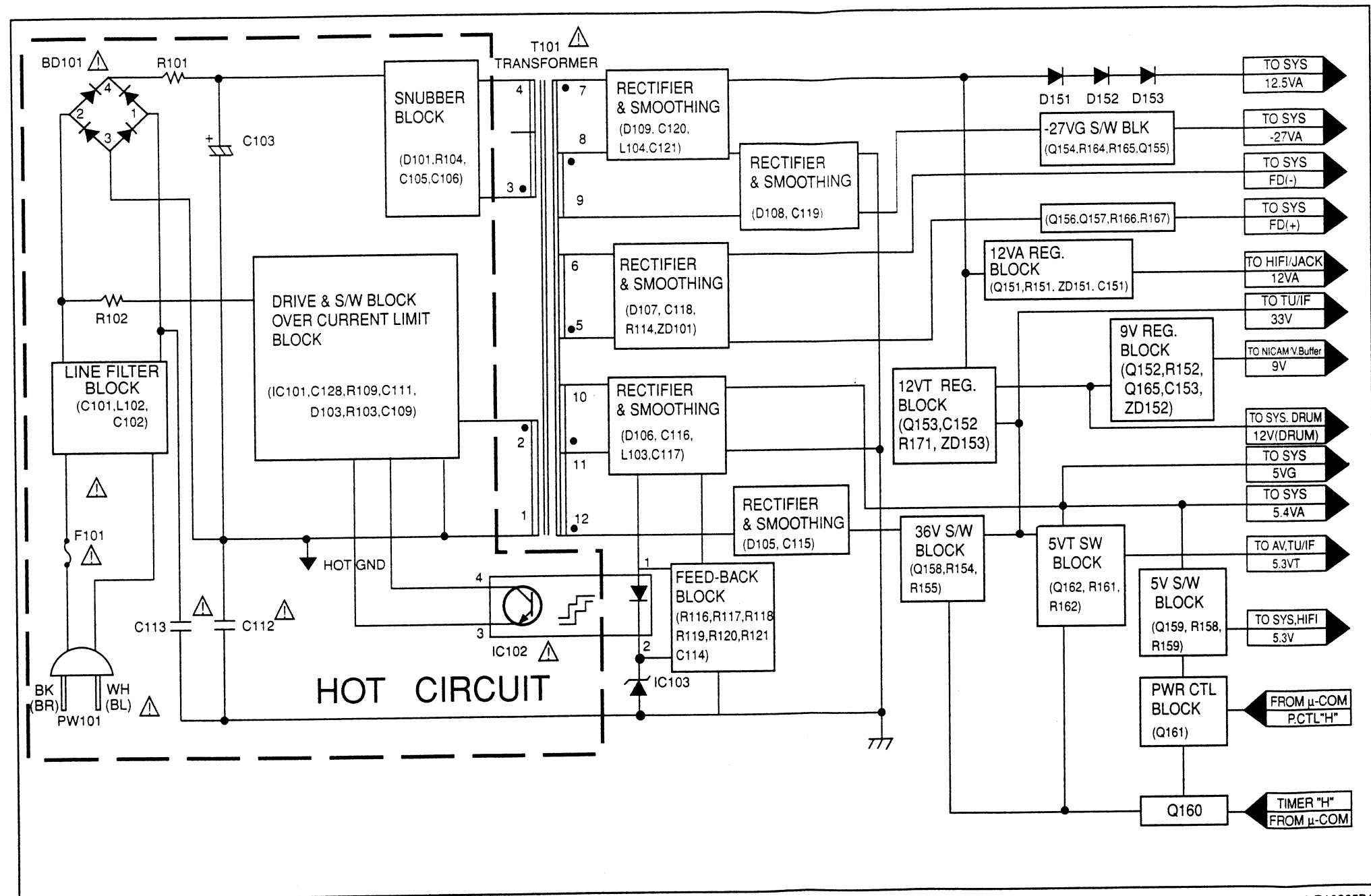
• CONNECTION



• WAVEFORM



1. Power Block Diagram



NOTES :  Symbol denotes AC ground.
 Symbol denotes DC chassis ground.

'99 02. 10 R10385BA

* IC101 Voltage Sheet * IC102 Voltage Sheet

PB	16.1	4.0
REC	16.3	4.6
5		
IC101		
1		
PB	309	0.0
REC	309	0.0

PB	4.0	0.0
REC	4.0	0.0
4		
IC102		
1		
PB	4.9	3.9
REC	4.9	4.0

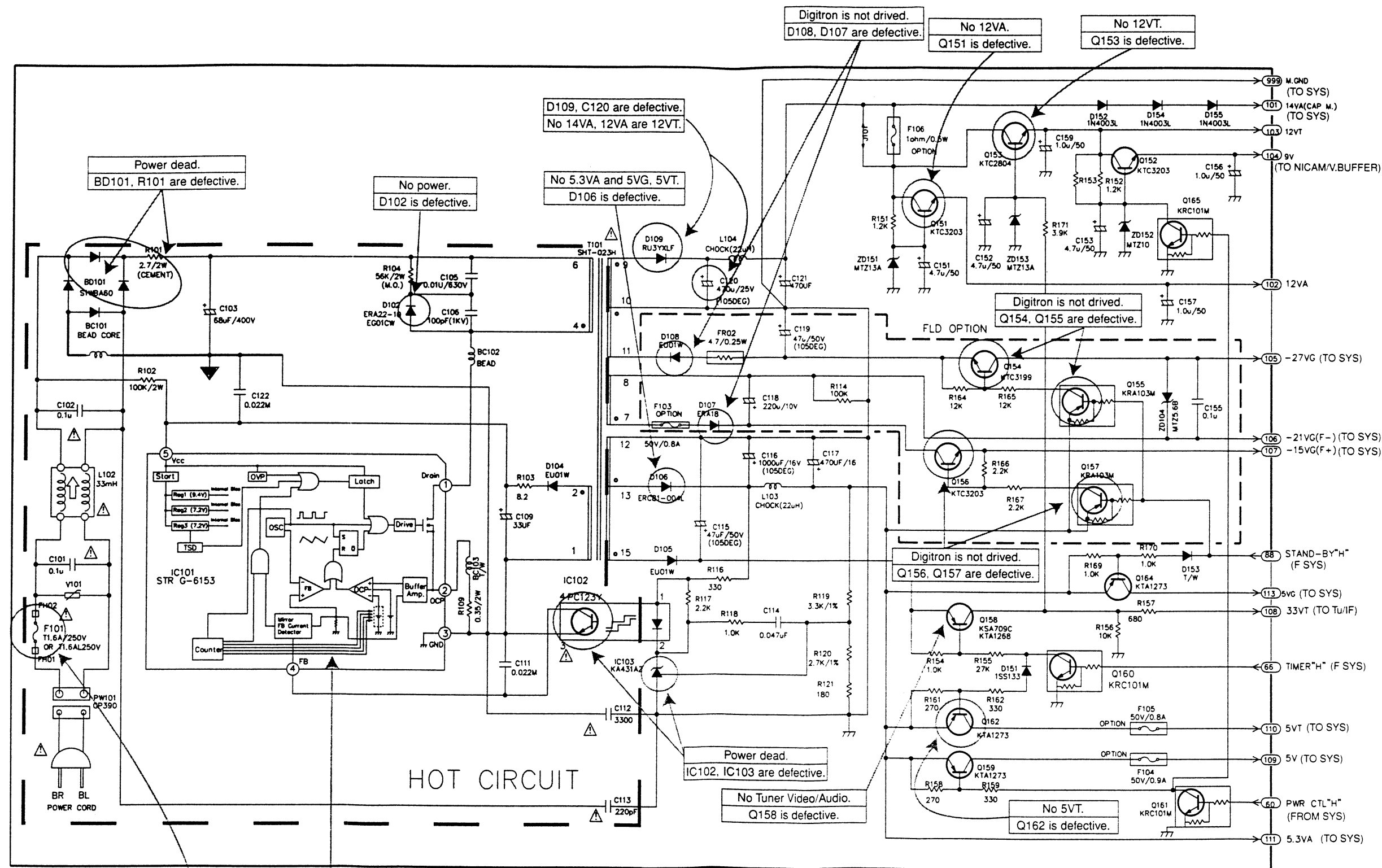
* IC103 Voltage Sheet

	Emitter		Collector		Base	
	PB	REC	PB	REC	PB	REC
IC103	2.5	2.5	0.0	0.0	3.9	3.9

★ TR Voltage Sheet

	Emitter		Collector		Base	
	PB	REC	PB	REC	PB	REC
Q151	11.9	11.8	14.8	15.0	12.5	12.4
Q152	9.4	9.3	11.8	11.6	10.0	9.9
Q153	11.8	11.7	14.8	15.0	12.4	12.3
Q154	-27.3	-27.9	-27.3	-27.8	-26.6	-27.0
Q155	5.3	5.3	5.2	5.3	0.0	0.0
Q156	-16.1	-16.5	-16.0	-16.4	-15.4	-15.7
Q157	5.3	5.3	5.2	5.2	0.0	0.0
Q158	35.6	36.0	35.3	35.7	35.0	35.4
Q159	5.3	5.3	5.2	5.2	4.5	4.5
Q160	0.0	0.0	0.0	0.0	5.0	5.0
Q161	0.0	0.0	0.1	0.0	5.0	5.0
Q162	5.3	5.3	5.2	5.2	4.5	4.5
Q164	5.3	5.3	5.3	5.3	4.6	4.6
Q165	0.0	0.0	10.0	10.0	0.0	0.0

1. Power Circuit Diagram



LOCATION GUIDE

BC101	B6	Q160	J3
BC102	E6	Q161	J2
BC103	E4	Q162	I3
BD101	B6	Q164	J4
C101	A4	Q165	K7
C102	A5	R101	B7
C103	C6	R102	B6
C105	E6	R103	E5
C106	E6	R104	D6
C109	E4	R109	E4
C111	E3	R114	H5
C112	F3	R116	G4
C113	F2	R117	G4
C114	G4	R118	G4
C115	G4	R119	H4
C116	G5	R120	H3
C117	H5	R121	H3
C118	G5	R151	H7
C119	H6	R152	J7
C120	G6	R153	J7
C121	H6	R154	I3
C122	C5	R155	I3
C151	I6	R156	J4
C152	I7	R157	J4
C153	J7	R158	I2
C155	K5	R159	I2
C156	K7	R161	I3
C157	K6	R162	I3
C159	J8	R164	I5
D102	D6	R165	I5
D104	E5	R166	I5
D105	F4	R167	I5
D106	F5	R169	J4
D107	G5	R170	J4
D108	F6	R171	J7
D109	F7	T101	F7
D151	I3	V101	B4
D152	J8	ZD104	K5
D153	K4	ZD151	H7
D154	J8	ZD152	J7
D155	K8	ZD153	I7
F103	F5		
F104	J2		
F105	J3		
F106	H8		
FH01	A3		
FH02	A4		
FR02	G6		
IC101	B4		
IC102	F4		
IC103	F3		
J101	H8		
L102	B5		
L103	G5		
L104	G7		
PW101	B3		
Q151	I7		
Q152	J7		
Q153	I7		
Q154	I6		
Q155	J6		
Q156	I5		
Q157	J5		
Q158	I4		
Q159	I2		

'99 02.10 R10385A
AF90/40 SERIES

NOTES) ↓ Symbol denotes AC ground.
↑↑ Symbol denotes DC chassis ground.

NOTE) ⚠ Warning
Parts that are shaded are critical
With respect to risk of fire or
electrical shock.

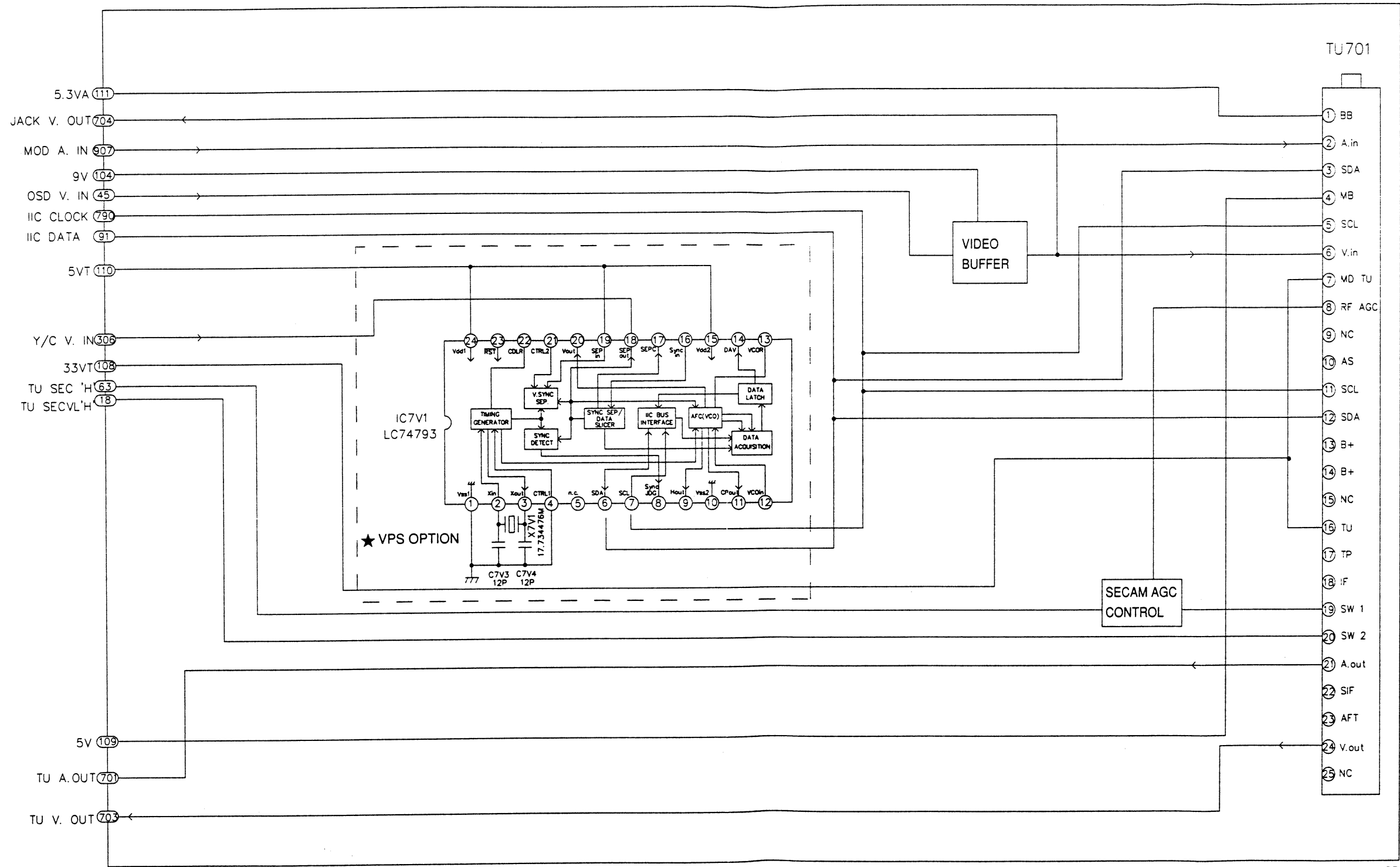
NOTE :

1. Shaded(■) parts are critical for safety. Replace only
with specified part number.

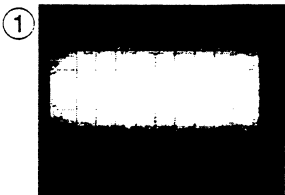
2. Voltages are DC-measured with a digital voltmeter
during TUNER mode.

NO.	I / F	OTHERS
FR02	ORF04710619	0
F103	ICP-N10	0
F104	ICP-N20	X
F105	ICP-N20	X
F106	ORF0101A619	X

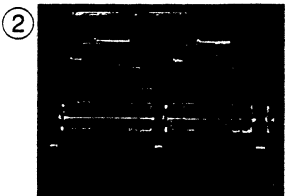
2. Tu/IF Block Diagram



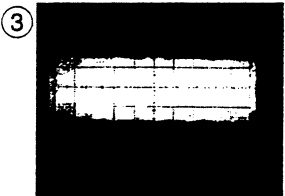
* TU/IF Oscilloscope Waveform



TU701 18 Pin (IF Signal)



TU701 24 Pin (Video Signal)



TU701 22 Pin & IC751 47 Pin (SIF Signal)



TU701 21 Pin (Audio signal)

* TU701 Voltage Sheet

1	BB	5.25	13	B+	4.985
2	A.in	0.002	14	B+	4.985
3	SEA	5.1	15	NC	0
4	MB	5.19	16	TU	32.29
5	SCL	5.2	17	TP	0
6	V.in	0	18	IF	0
7	MD TU	32.27	19	SW1	5.054 1
8	KF AGC	2.55	20	SW2	0
9	NC	0	21	A.OUT	2.38
10	AS	0.048	22	SIF	0
11	SCL	5.1	23	AFT	2.463
12	SEA	5.2	24	V.OUT	1.337
			25	NC	0

* IC7V1 Voltage Sheet

5.0224	9974	4970	0.0024	9696	0.0324	6022	2.5312	9335	0.0320	1591	278
IC7V1(LC74793)											
0.0032	5532	6270	0.0020	0.001	5.2	5.2	5.0124	6430	0.0032	9932	992

7

6

5

4

3

2

1

0

LOCATION GUIDE

C701 H3
C702 H6
C703 J3
C704 J7
C705 K7
C706 K4
C707 K4
C708 H6
C710 J5
C711 J5
C712 K2
C713 J6
C714 K6
C7M1 I7
C7M2 J6
C7M3 J7
C7M4 J6
C7M5 H7
C7S1 I3
C7V1 C6
C7V2 D6
C7V3 E4
C7V4 E4
C7V5 G4
C7V6 G4
C7V7 E6
C7V8 F6
IC7V1 D5
L701 C7
L702 J7
L703 J4
L704 K2
L705 J7
L7V1 C6
Q701 I6
Q7S1 I3
R701 H6
R702 H6
R704 I6
R706 J5
R707 J5
R7M1 H7
R7M3 J6
R7M4 J6
R7M5 I7
R7M6 I6
R7S1 I3
R7V4 G4
R7V5 G4
R7V6 G6
R7V7 F4
R7V8 F4
TU701 K8
X7V1 E4
ZD701 H3

'99 02.10 R10388B
AF49/29'S

WAVE FORM

TU. V. OUT
SIF OUT
TU. A. OUT

MOD. V. IN
VPS. V. IN

IC7V1 LC74793

OPTION : VPS MODEL ONLY

5.3VA (11)
5V (109)
MOD A. IN (11)
9V (702)
9V (104)
OSD V. IN (45)
IIC CLOCK (79)
IIC DATA (79)
5VT (110)
Y/C V. IN (106)
A.GND (99)
IIC DATA (31)
IIC CLOCK (90)
JACK V. OUT (704)
33VT (108)
TU SEC 'H' (63)
TU SEC V. H' (18)
TU A. OUT (70)
AFT OUT (9)
TU V. OUT (703)

BB
A.in
SDA
MB
SCL
V.in
MD TU
RF AGC
AS
SCL
SDA
B+
B+
NC
TU
TP
IF
SW 1
SW 2
A.out
SIF
AFT
V.out
NC

7

6

5

4

3

2

1

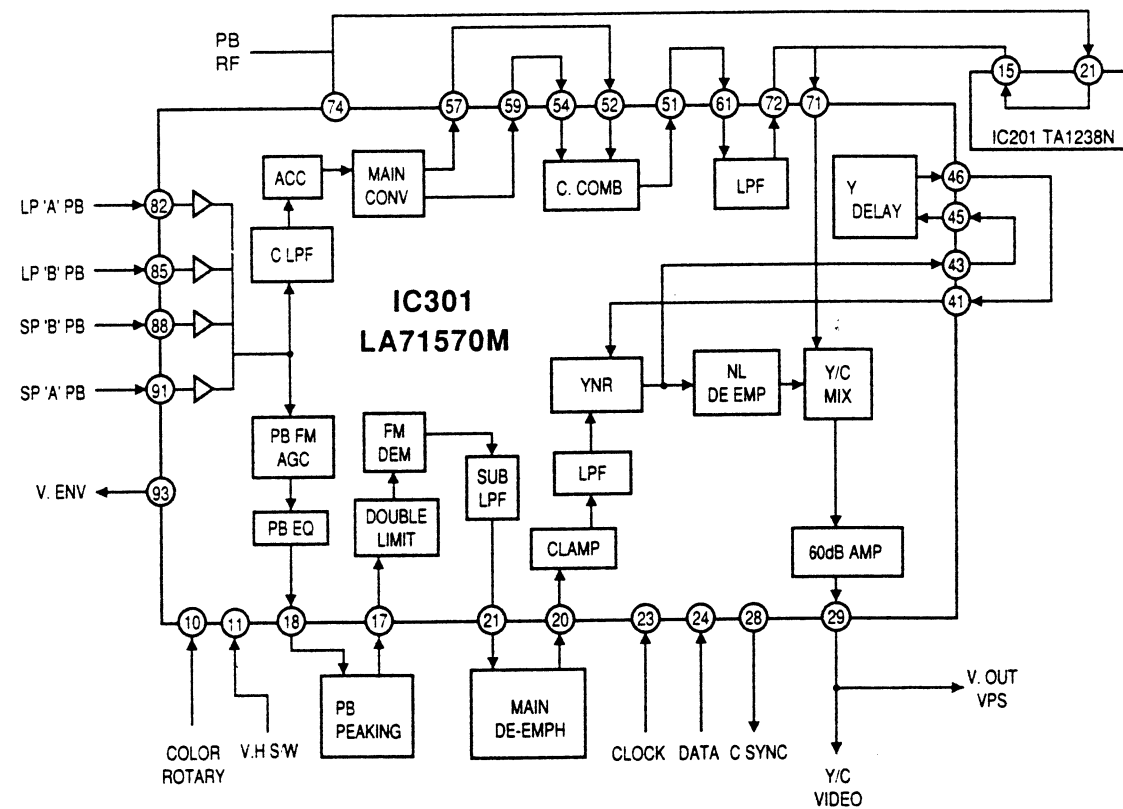
0

A B C D E F G H I J K L M

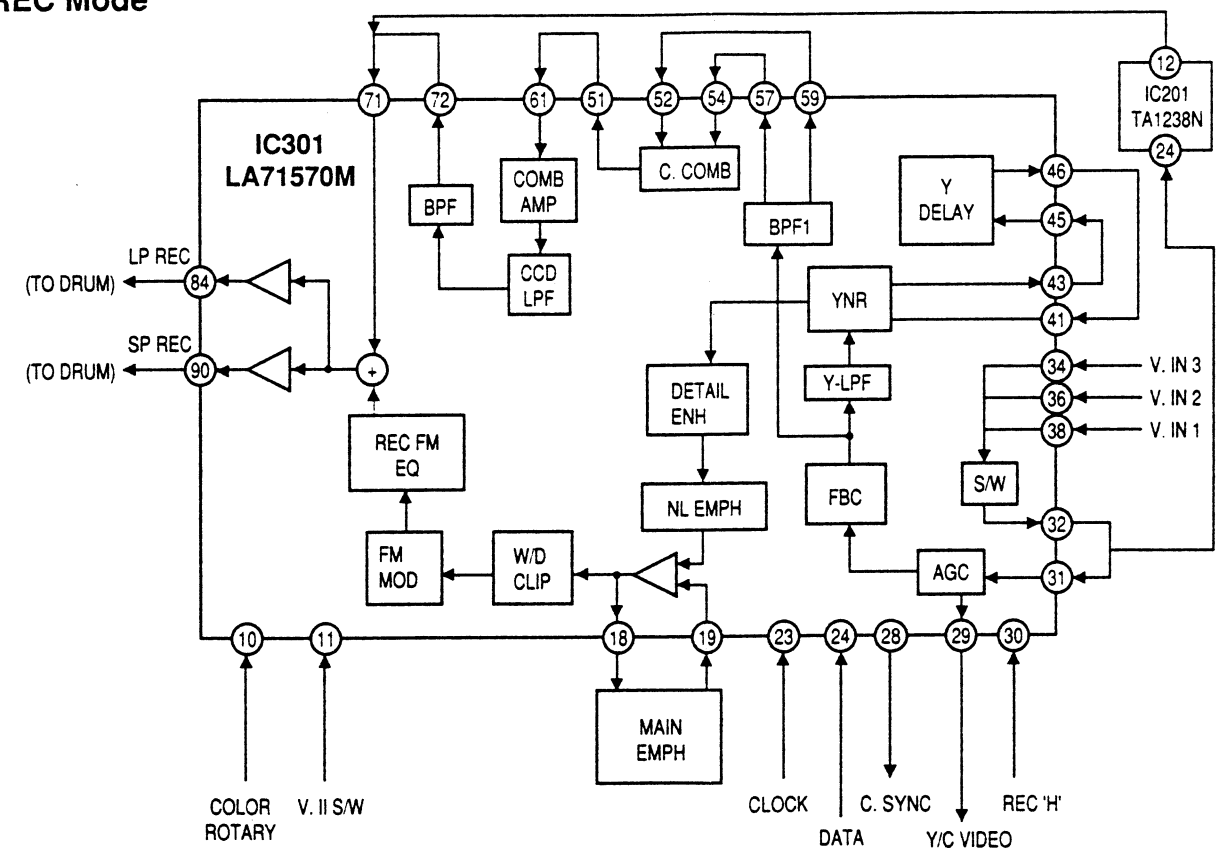
3-10

3. Y/C Block Diagram

1) PB Mode



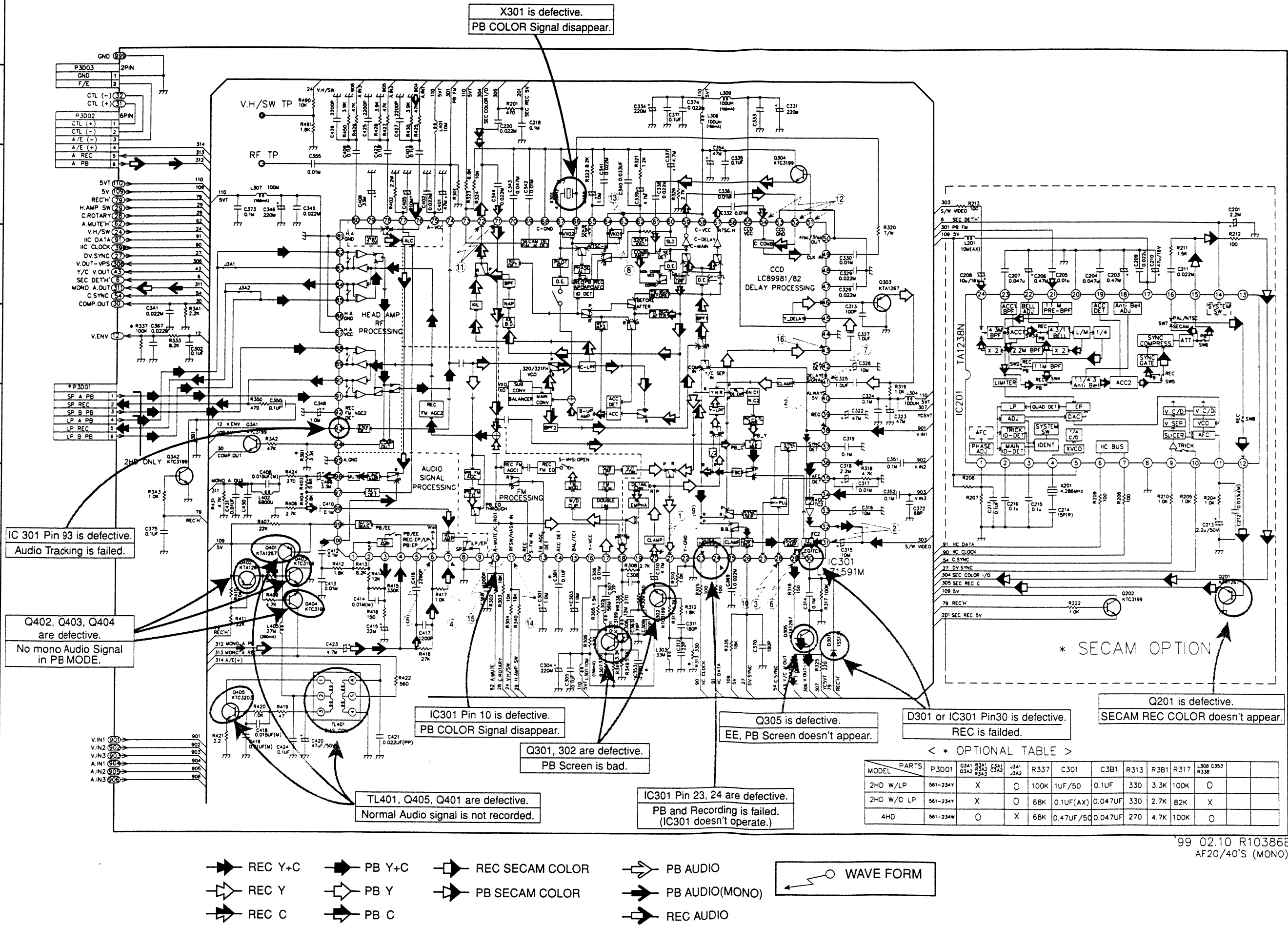
2) REC Mode



3. A/V Circuit Diagram

LOCATION GUIDE

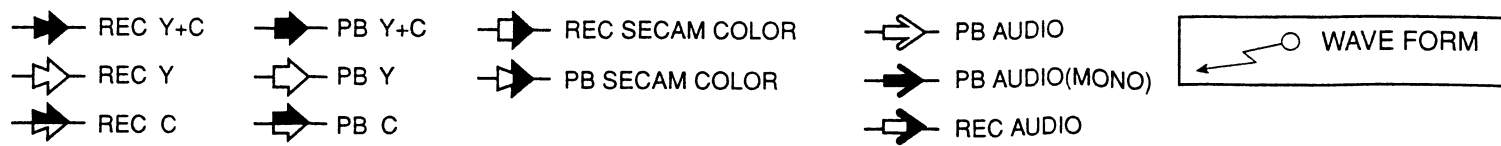
12
11
10
9
8
7
6
5
4
3
2
1



C201	P10	C372	L6	R212	P9
C203	09	C373	D10	R213	M10
C204	N9	C374	I11	R222	N5
C205	N9	C375	B6	R301	F10
C206	N9	C3A1	B8	R302	G5
C207	M9	C3B1	H5	R303	G5
C208	M9	C401	F10	R304	C4
C209	09	C402	F10	R305	H5
C210	09	C403	F10	R306	H4
C211	09	C405	F10	R307	H4
C212	P6	C406	E10	R308	H5
C213	P6	C408	D6	R309	I5
C214	N6	C409	E10	R310	I5
C215	N6	C410	E6	R311	I5
C216	M6	C412	E5	R312	I5
C217	M6	C413	E5	R313	I4
C218	G11	C414	E5	R314	J5
C220	G11	C415	E4	R315	I5
C301	C5	C416	F5	R316	K5
C302	C8	C417	F4	R317	K5
C303	H5	C418	D3	R318	K6
C304	G4	C419	D3	R319	L7
C305	H4	C420	D3	R320	L9
C306	H5	C421	E3	R321	I10
C307	H5	C422	E10	R322	H10
C308	H5	C423	E4	R323	F10
C309	I4	C424	D3	R324	G10
C310	I5	C425	E11	R325	K4
C311	I5	C426	E11	R326	I10
C312	I4	C427	E11	R327	C8
C313	K8	C430	D6	R328	J4
C314	K5	C431	C6	R329	B8
C315	K5	C466	E6	R330	H5
C316	K6	D301	K4	R340	G4
C317	K6	IC201	M7	R341	H4
C318	K6	IC301	K5	R349	H4
C319	K7	J3A1	C9	R350	D7
C320	K4	J3A2	C9	R3A1	C8
C322	K7	J3B1	C7	R3A2	D7
C323	L7	L201	M9	R3A3	B6
C324	K7	L301	H4	R3B1	D7
C325	K8	L302	H5	R402	E10
C326	K8	L303	I4	R403	D6
C327	K8	L304	L7	R404	D6
C328	K9	L306	I11	R406	D6
C329	K9	L307	D10	R407	D6
C330	K9	L308	H4	R408	D5
C331	J11	L309	J11	R409	O5
C332	J10	L401	F11	R410	C5
C333	J11	L402	D6	R411	C5
C334	H11	L405	D4	R412	E5
C335	J10	P3001	A7	R413	E5
C336	J10	P3002	A11	R414	E5
C337	I10	P3003	A11	R415	E5
C338	I10	Q201	P5	R416	E5
C339	I10	Q202	O5	R417	F5
C340	H10	Q301	H4	R418	F4
C341	H10	Q302	I5	R419	D3
C342	G10	Q303	L9	R420	D3
C343	G10	Q304	J10	R421	C3
C344	G10	Q305	J4	R422	F4
C345	D10	Q3A1	D7	R424	D6
C346	D10	Q3A2	C7	R425	F11
C348	D7	Q401	D5	R427	E11
C350	D7	Q402	D5	R428	E11
C351	L7	Q403	D5	R429	F11
C352	L6	Q404	D5	R430	F11
C353	I4	Q405	C4	R431	C6
C354	I10	R201	G11	R450	E11
C355	D10	R204	P6	R490	D11
C358	H10	R205	O6	R491	D11
C363	H4	R206	O6	TL401	E3
C367	B8	R207	M6	X201	N6
C368	G5	R208	M6	X301	G10
C369	J5	R209	N6		
C370	J4	R210	O6		
C371	I11	R211	O9		

< * OPTIONAL TABLE >

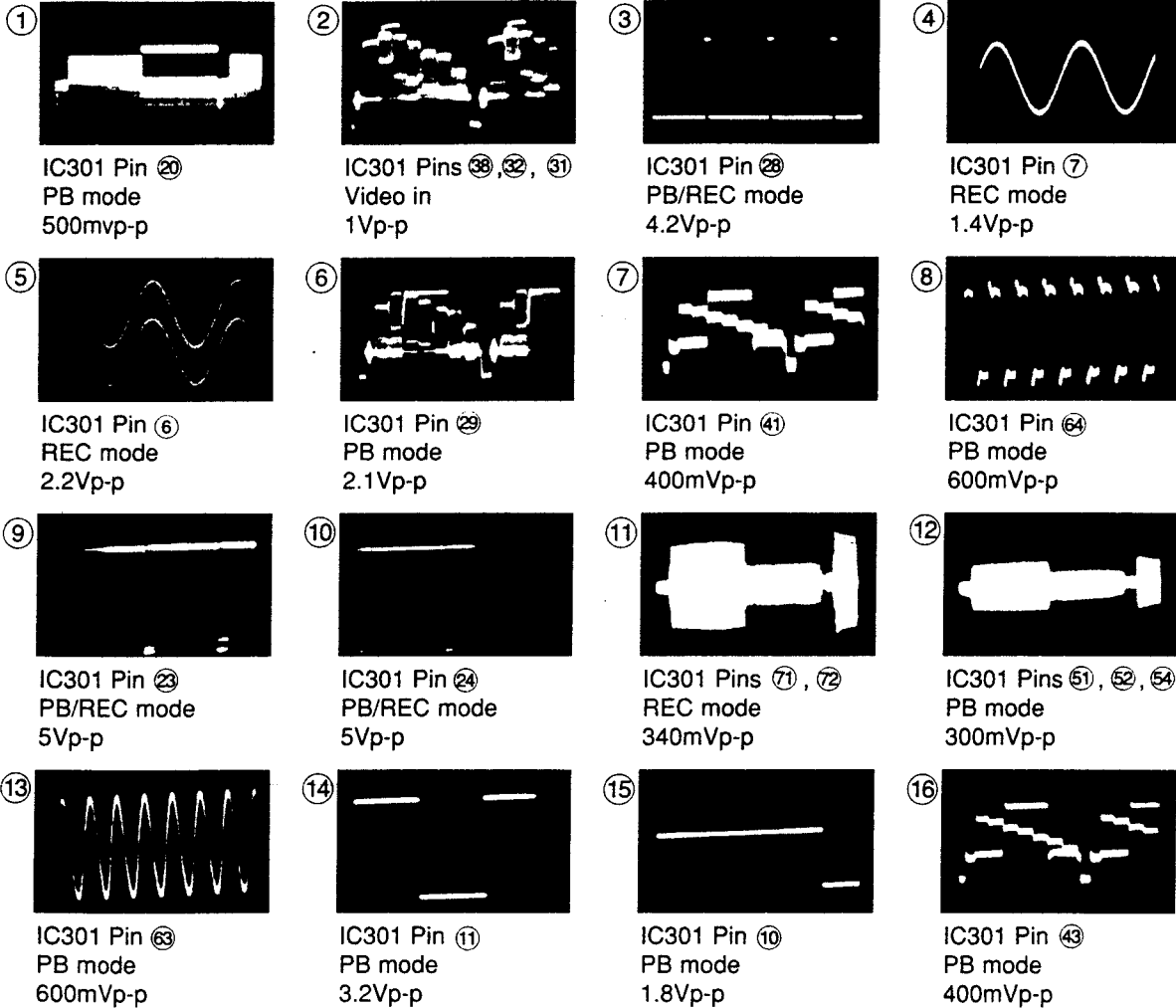
MODEL	PARTS	P3001	Q3A1	R3A1	C3A1	J3A1	R337	C301	C3B1	R313	R3B1	R317	L308	C353	R338
2HD W/LP	561-234Y	X					100K	1UF/50	0.1UF	330	3.3K	100K			
2HD W/O LP	561-234Y	X					68K	0.1UF(AX)	0.047UF	330	2.7K	82K	X		
4HD	561-234W	O	X				68K	0.47UF/50	0.047UF	270	4.7K	100K			



99 02.10 R10386B
AF20/40'S (MONO)

WAVEFORM & VOLTAGE SHEET

★ IC301 Oscilloscope Waveform



★ IC301 Voltage Sheet

PIN	PB	REC	PIN	PB	REC	PIN	PB	REC	PIN	PB	REC	PIN	PB	REC
1	2.44	2.41	21	2.15	2.54	41	3.02	2.9	61	3.36	3.43	81	0.0	0.0
2	2.44	2.41	22	0.0	0.0	42	2.79	3.1	62	3.47	3.45	82	0.01	0.01
3	2.47	2.52	23	4.85	4.85	43	1.96	2.11	63	5.0V	5.0V	83	0.01	0.01
4	2.45	2.39	24	4.85	4.85	44	0.17	0.17	64	5.0V	5.0V	84	0.76	0.69
5	0.05	2.4	25	0.0	0.0	45	1.53	2.26	65	2.06	1.35	85	0.76	0.69
6	2.47	2.42	26	0.07	0.07	46	1.64	1.5	66	2.63	2.75	86	0.0	0.0
7	2.47	2.42	27	0.34	0.34	47	9.59	9.53	67	3.9	3.72	87	4.97	4.99
8	0.0	0.0	28	0.34	0.34	48	2.21	2.33	68	0.0	0.0	88	1.89	4.84
9	0.0	0.0	29	1.73	1.94	49	0.88	0.89	69	0.63	0.6	89	0.0	0.0
10	0.97	0.97	30	1.09	4.35	50	0.0	0.0	70	1.98	2.83	90	1.89	0.0
11	1.7	1.7	31	2.88	2.88	51	1.94	1.9	71	2.5	2.43	91	1.89	4.84
12	5.05	2.69	32	1.5	2.27	52	2.59	2.59	72	3.26	3.02	92	0.21	0.23
13	1.5	1.42	33	1.87	1.31	53	0.0	0.0	73	3.4	3.36	93	4.23	0.02
14	1.9	1.53	34	1.82	3.31	54	2.62	2.58	74	1.8	0.01	94	0.01	0.25
15	2.3	2.31	35	1.26	3.36	55	5.07	5.01	75	4.99	4.95	95	0.0	0.0
16	5.07	5.02	36	1.82	3.31	56	0.22	0.53	76	2.44	2.44	96	2.26	2.26
17	3.03	0.17	37	1.61	4.73	57	3.38	3.43	77	0.01	0.01	97	0.0	0.0
18	1.87	2.47	38	2.14	2.24	58	5.01	4.98	78	2.44	2.44	98	2.44	1.62
19	1.12	2.47	39	4.05	4.06	59	3.3	3.36	79	2.47	2.44	99	4.97	4.11
20	2.98	3.04	40	5.08	5.02	60	3.46	3.43	80	2.38	1.92	100	2.44	3.26

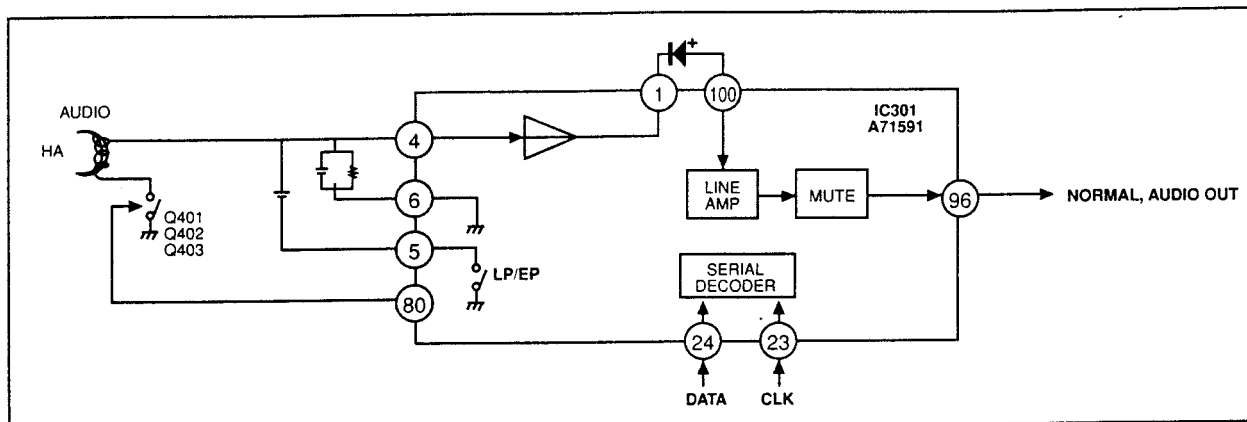
★ TR Voltage Sheet

	PB mode			REC mode		
	E	C	B	E	C	B
Q301	1.18	4.32	1.8	1.71	3.75	2.34
Q302	1.3	5.09	1.9	1.89	5.09	2.51
Q303	2.62	0.0	2.05	2.17	0.0	1.53
Q304	1.36	5.08	1.93	1.34	5.02	1.9
Q305	2.43	0.0	1.75	2.53	0.0	0.55

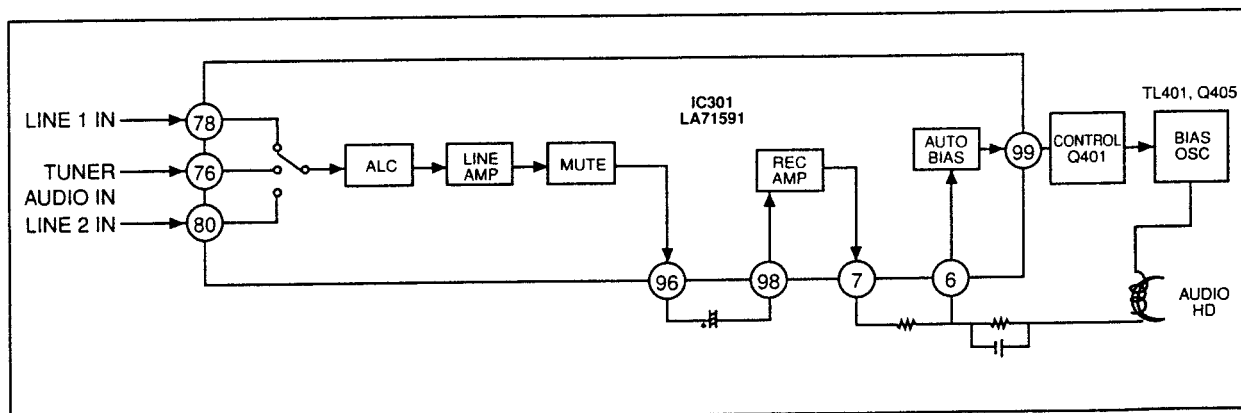
4. Audio Block Diagram

5.

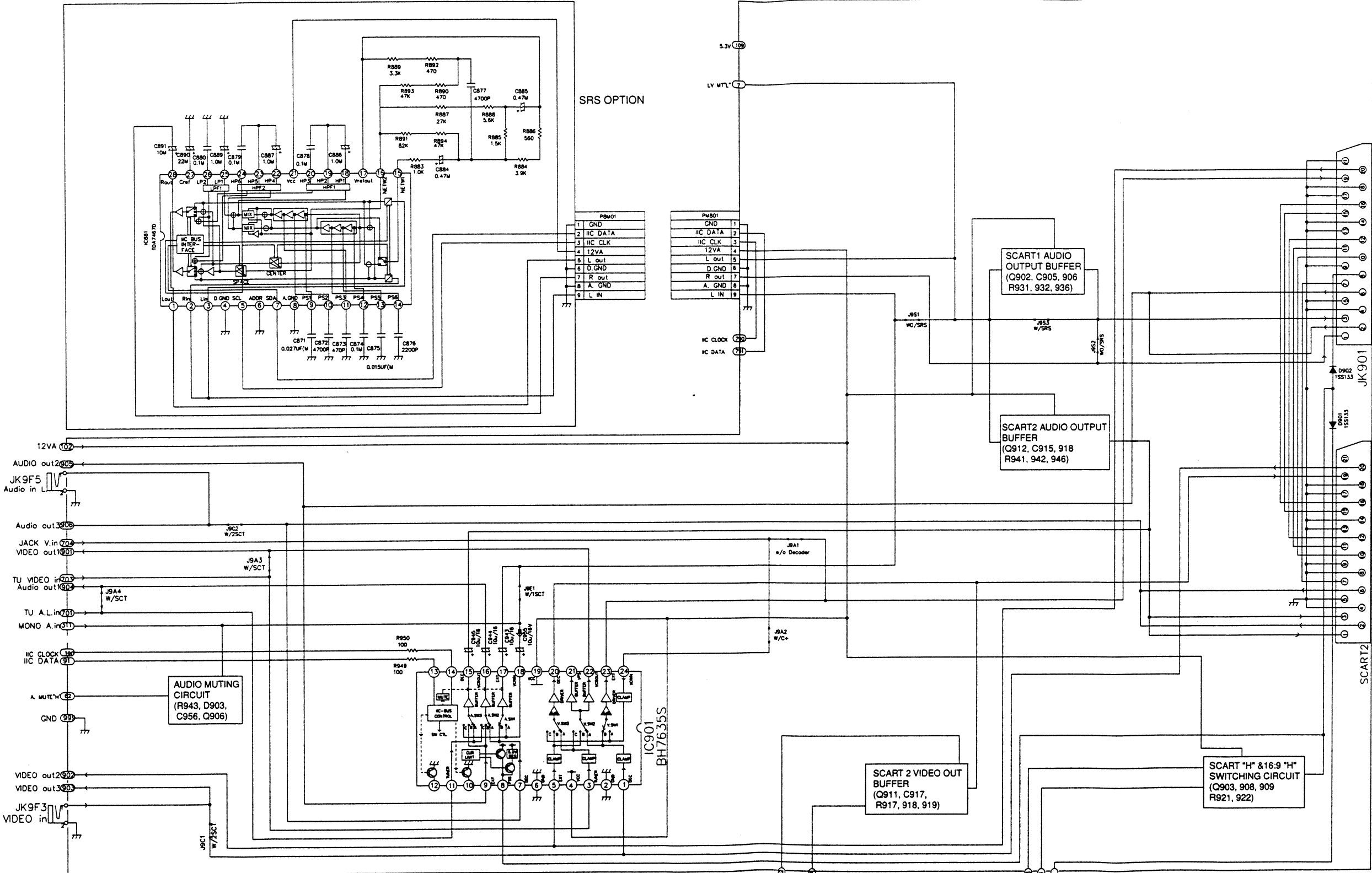
1) PB Mode



2) REC Mode



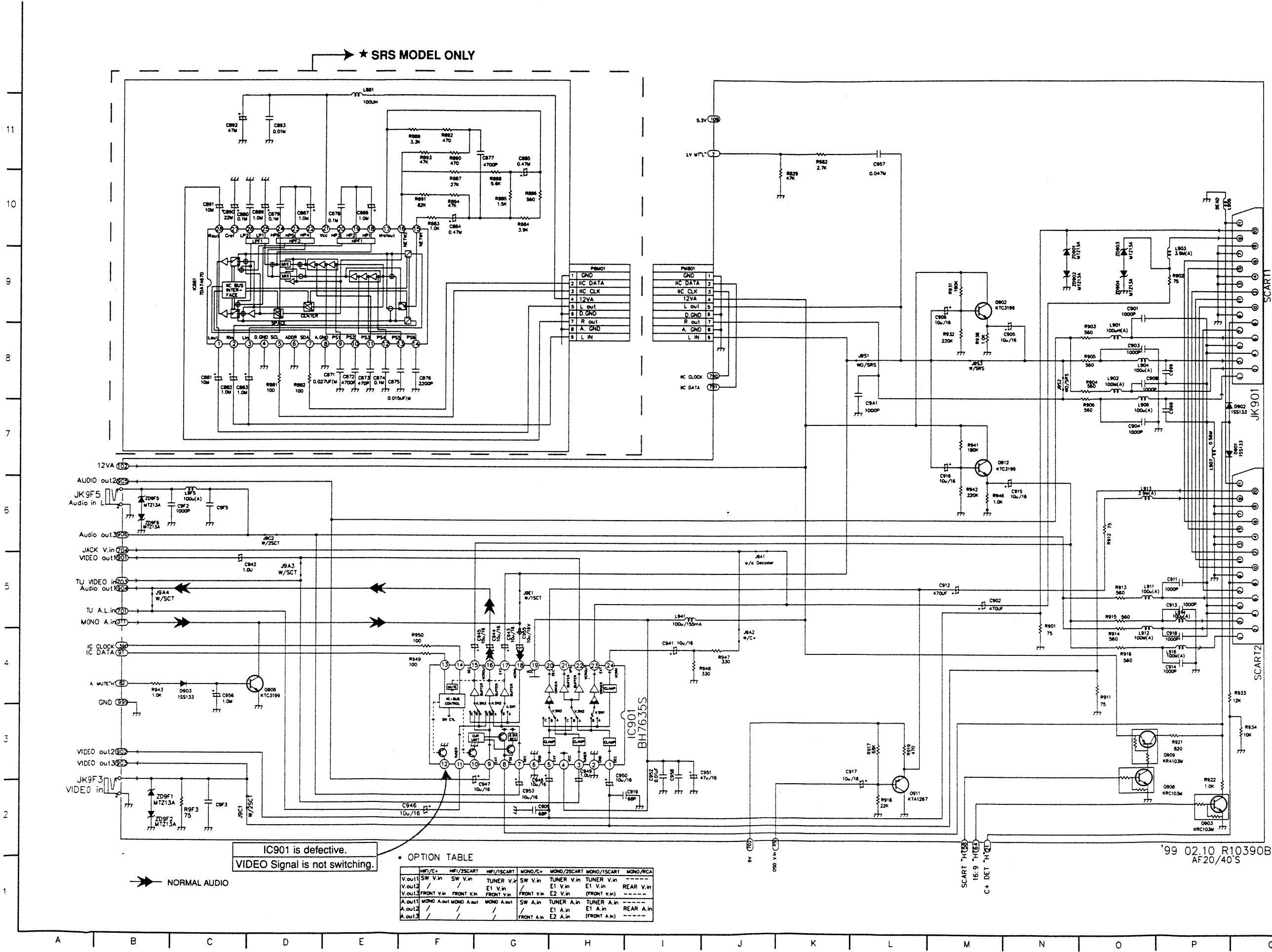
5. SCART & SRS Block Diagram



* OPTION TABLE

HF1/C+	HF1/SCART	HF1/SCART	MONO/C+	MONO/SCART	MONO/SCART	MONO/SCART
V.out1	SW V.in	SW V.in	TUNER V.in	SW V.in	TUNER V.in	REAR V.in
V.out2	/	/	E1 V.in	E1 V.in	E1 V.in	FRONT V.in
V.out3	FRONT V.in	FRONT V.in	FRONT V.in	FRONT V.in	FRONT V.in	FRONT V.in
A.out1	MONO A.out	MONO A.out	SW A.in	TUNER A.in	TUNER A.in	REAR A.in
A.out2	/	/	E1 A.in	E1 A.in	E1 A.in	FRONT A.in
A.out3	/	/	FRONT A.in	E2 A.in	(FRONT A.in)	-----

5. SCART & SRS Circuit Diagram



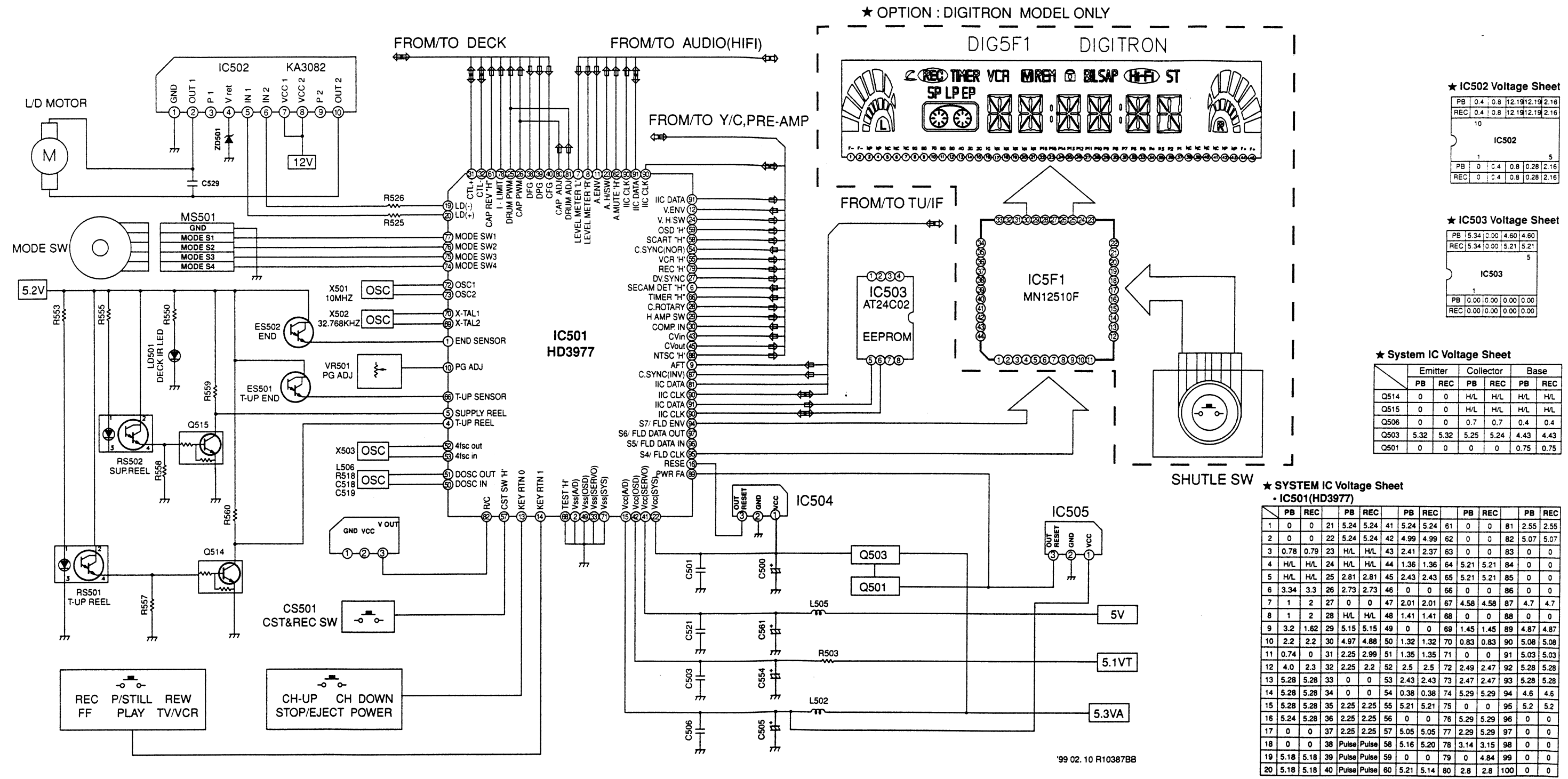
LOCATION GUIDE

C871	D8	L941	I5
C872	E8	L9F5	C6
C873	E8	PM01	H9
C874	E8	PM01	I9
C875	E8	O902	M9
C876	F8	O903	P2
C877	G11	O906	D4
C878	D10	O908	P2
C879	D10	O909	P3
C880	C10	O911	L2
C881	C8	O912	M7
C882	C8	R829	K10
C883	C8	R881	D8
C884	F10	R882	D8
C885	G11	R883	F10
C886	E10	R884	G10
C887	D10	R885	G10
C888	C10	R886	G10
C889	C10	R887	F10
C890	C10	R888	G10
C891	C11	R889	F11
C892	C11	R890	F11
C893	O9	R891	F10
C894	M5	R892	F11
C895	O8	R893	F11
C896	O7	R894	F10
C897	M8	R901	N5
C898	M9	R902	P9
C899	O8	R903	O8
C900	G2	R904	O8
C901	P5	R905	O8
C902	M5	R906	O7
C903	P5	R911	O4
C904	P4	R912	O6
C905	N6	R913	O5
C906	M7	R914	O5
C907	K3	R915	O4
C908	P4	R916	O4
C909	H2	R917	L3
C910	I4	R918	L2
C911	C5	R919	L3
C912	G4	R921	P3
C913	G4	R922	P3
C914	C4	R931	M9
C915	F2	R932	M8
C916	G2	R933	O4
C917	G3	R934	O3
C918	H3	R936	M8
C919	H3	R941	M7
C920	I3	R942	M6
C921	G2	R943	B4
C922	G4	R946	M6
C923	C4	R947	J4
C924	L11	R948	I4
C925	I3	R949	F4
C926	P7	R950	F4
C927	P8	R952	K11
C928	L7	R9F3	C2
C929	C6	ZD901	N9
C930	C2	ZD902	N9
C931	C6	ZD903	O9
C932	O7	ZD904	O9
C933	C4	ZD9F1	B2
C934	C9	ZD9F2	B2
C935	I3	ZD9F5	B6
C936	I3	ZD9F6	B6
C937	J5		
C938	J4		
C939	D5		
C940	B5		
C941	C2		
C942	D6		
C943	G5		
C944	L8		
C945	N8		
C946	M8		
C947	O7		
C948	A2		
C949	A6		
C950	C12		
C951	O8		
C952	O8		
C953	P9		
C954	O8		
C955	O8		
C956	P10		
C957	O7		
C958	O5		
C959	O4		
C960	O6		
C961	P5		
C962	P4		

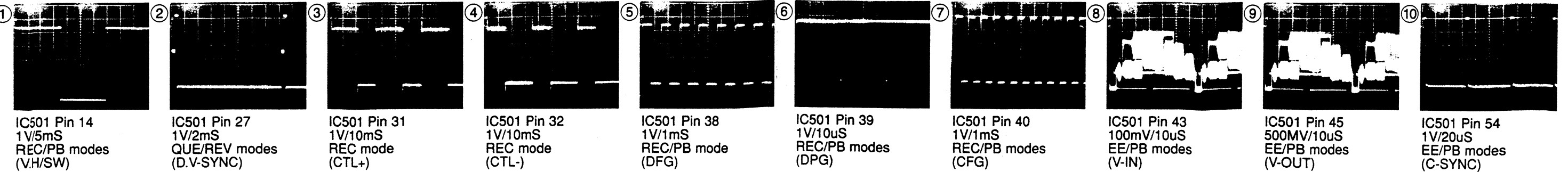
★IC901 Voltage Sheet

PB	3.6	4.4	4.2	0.9	5.1	0.0	0.0	0.7	0.6	0.7	11.9	3.9
REC	1.9	4.4	4.1	0.9	5.0	0.0	4.2	4.3	4.2	4.3	12.0	3.9
20 15												
IC901(BH7635S)												
5 10												
PB	3.8	3.9	3.9	3.9	3.8	3.8	3.8	3.8	3.8	3.8	3.8	0.0
REC	3.8	3.9	3.9	3.9	3.8	3.8	3.8	3.8	3.8	3.9	3.9	0.0

6. System Block Diagram

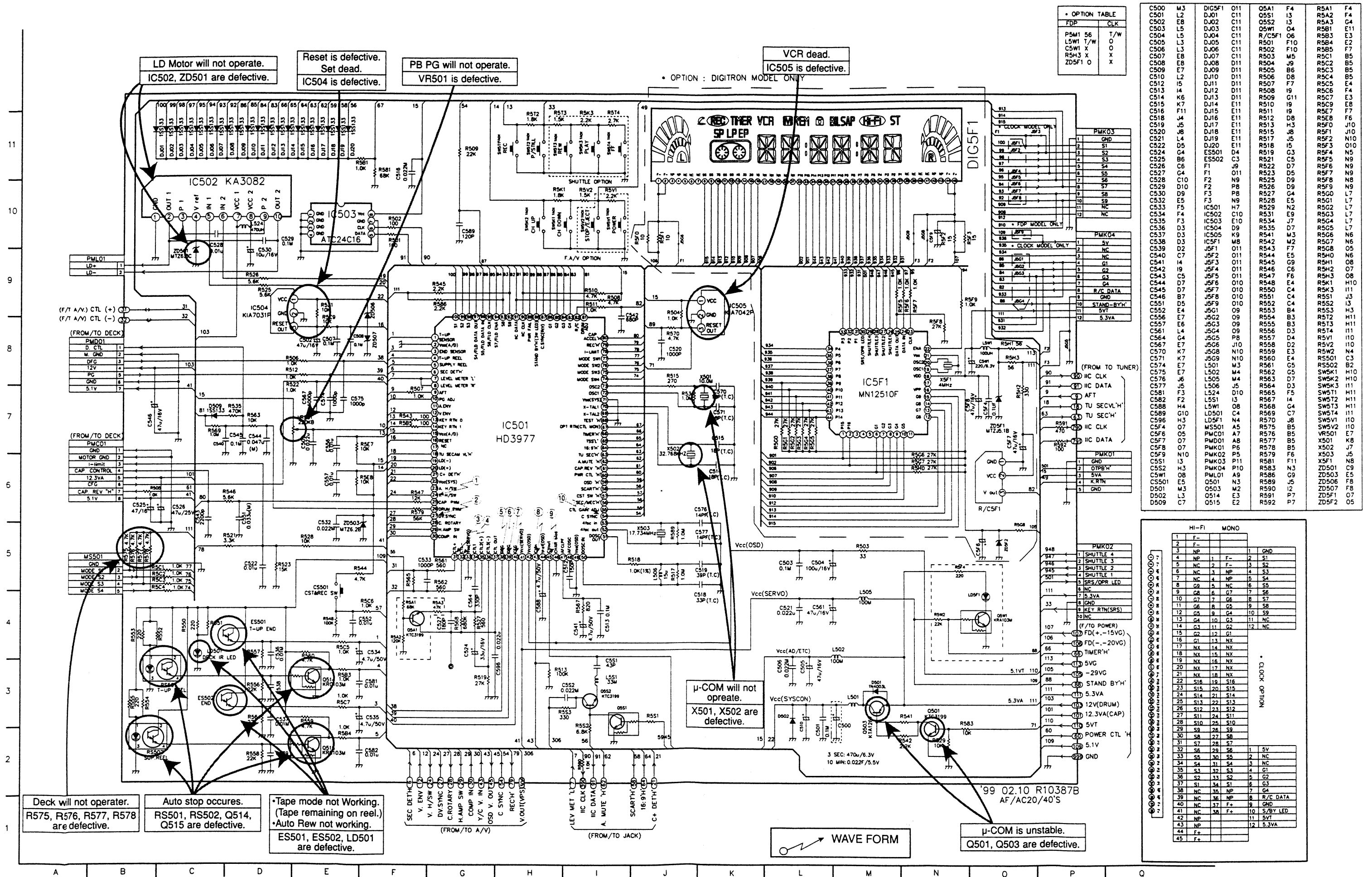


* IC501 Waveform Photographs



6. System Circuit Diagram

LOCATION GUIDE



.



C5S1	B4
C5S2	C4
C5S3	B4
C5S4	C4
LD5R1	D3
PKM01	H2
PKM02	A4
Q5R1	D2
R5K3	C3
R5R1	C3
R5R2	E3
R5T3	B3
R5T4	C3
R5V1	D2
SH5V1	G5
SW5R1	D2
SW5T2	B2
SW5V1	G2
SW5V2	G2
SW5V3	F2
SW5V4	F2

'99 02.10 R10393B
ACF9,4,20'S

1

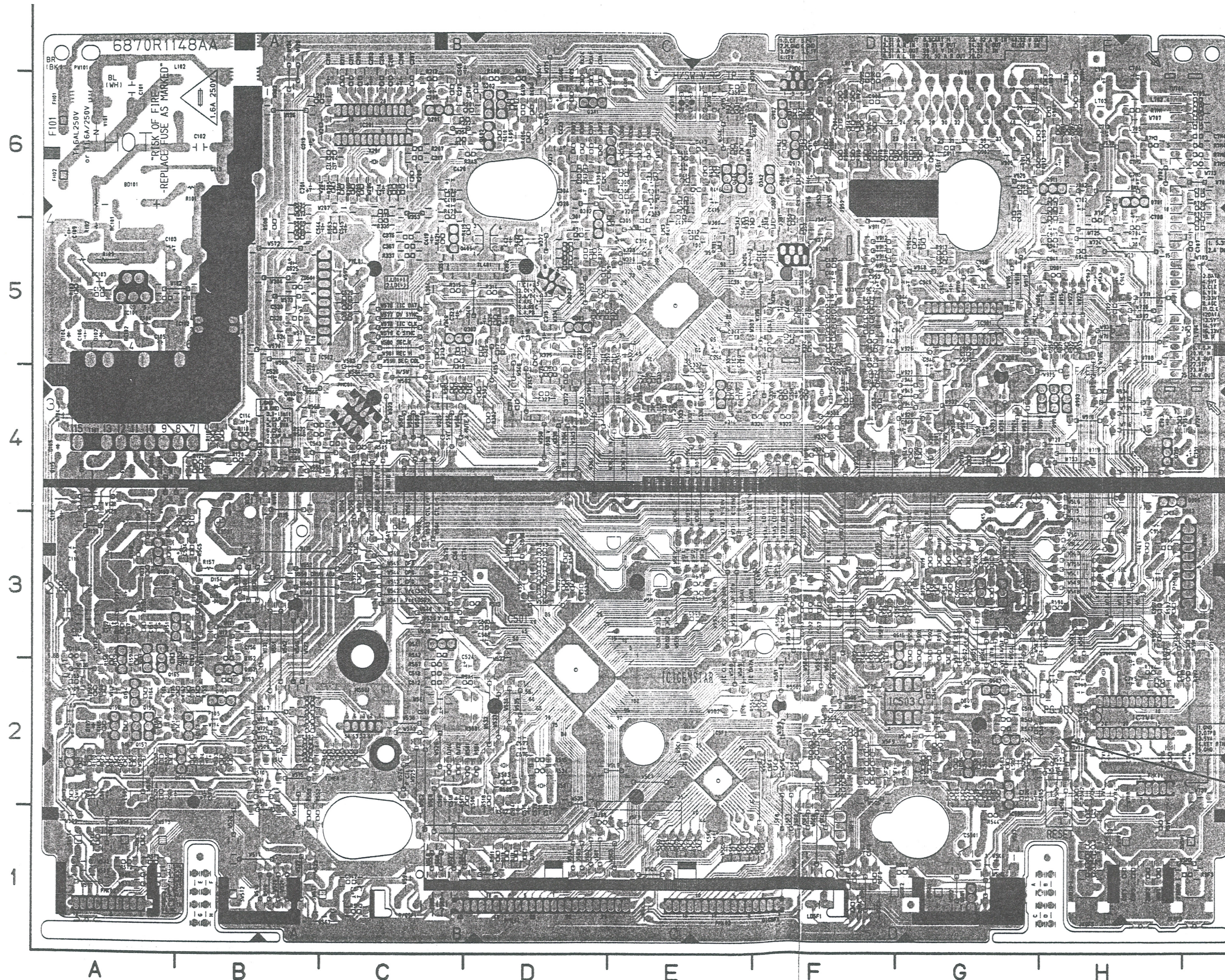


C5P1	E4
C5P2	A3
J5Q1	F2
J5Q2	F2
J5Q3	G5
L5P0	E2
LD5W1	G5
PKM03	H4
PKM04	H3
Q5P0	C3
Q5P1	B3
Q5P2	B3
Q5P3	A3
Q5P4	D2
Q5P5	D3
Q5P6	D3
Q5P7	D4
Q5P8	D4
Q5P9	D5
Q5Q0	D5
Q5Q1	D5
Q5Q2	D6
Q5W1	F5
Q5W2	G5
R/C5W1	E6
R5P0	C2
R5P1	B2
R5P2	B2
R5P3	B2
R5Q3	C5
R5Q4	C5
R5Q5	C5
R5Q6	C4
R5Q7	C4
R5Q8	C4
R5Q9	C4
R5U0	C3
R5U1	C3
R5U2	E5
R5W1	F6
R5W2	G3
R5W3	G3
SEG501	A5

'99 02.10 R10391A
AC90/40/20'S

PRINTED CIRCUIT BOARD DIAGRAMS

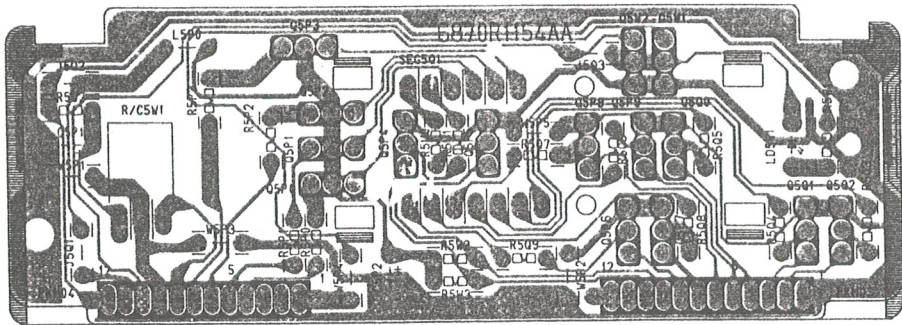
1. MAIN P.C.Board



LOCATION GUIDE

BC101	A6	C341	F4	C337	G3	C347	G5	J574	F1	C155	A2	R303	D4	R325	C5	R340	C1
BC102	A5	C342	F5	C338	A2	C348	G4	J575	F2	C156	A2	R304	C4	R326	C5	R341	A1
BC103	A6	C343	F6	C339	F3	C349	H5	J576	F1	C157	A2	R305	D6	R327	C3	R342	A1
BC104	B4	C344	F5	C340	B7	C350	H6	J577	E1	C158	A3	R306	E8	R328	C2	R343	A1
C101	A6	C345	F3	C341	C2	C351	G4	J578	D1	C159	A3	R307	E6	R329	G2	R344	A1
C102	B6	C346	F6	C342	C1	C352	F4	J579	D1	C160	B2	R308	E6	R330	G2	R345	A1
C103	A5	C350	F6	C344	C5	C356	G5	J580	C1	C162	B2	R310	E6	R332	B6	R347	A1
C104	A5	C351	F5	C345	C5	C357	H5	J581	C1	C163	A2	R311	D6	R333	B6	R348	A1
C109	A5	C352	E6	C346	E7	C358	H5	J582	C1	C164	A2	R312	D6	R334	B6	R349	A1
C111	A5	C353	E6	C347	C5	C359	G5	J583	C1	C165	A2	R313	D6	R335	B6	R350	A1
C112	A4	C354	E6	C348	C5	C360	H5	J584	C1	C166	A2	R314	D6	R336	B6	R351	A1
C113	B6	C355	E6	C349	C5	C361	H5	J585	C1	C167	A2	R315	D6	R337	B6	R352	A1
C114	B4	C356	F4	C350	F3	C362	H1	J586	H6	C168	A2	R316	D6	R338	B6	R353	A1
C116	A4	C357	D6	C351	B2	C363	H1	J587	H6	C169	A2	R317	D6	R339	B6	R354	A1
C117	A3	C358	E3	C352	D2	C364	H1	J588	H6	C170	A2	R318	D6	R340	B6	R355	A1
C118	A2	C359	E3	C353	D2	C365	H1	J589	H6	C171	A2	R319	D6	R341	B6	R356	A1
C119	A4	C360	D6	C354	D2	C366	H1	J590	H6	C172	A2	R320	D6	R342	B6	R357	A1
C120	A4	C361	D6	C355	D2	C367	H1	J591	H6	C173	A2	R321	D6	R343	B6	R358	A1
C121	A3	C362	D6	C356	D2	C368	H1	J592	H6	C174	A2	R322	D6	R344	B6	R359	A1
C122	A5	C363	F4	C357	D2	C369	H1	J593	H6	C175	A2	R323	D6	R345	B6	R360	A1
C123	A5	C364	F4	C358	D2	C370	H1	J594	H6	C176	A2	R324	D6	R346	B6	R361	A1
C124	A5	C365	F4	C359	D2	C371	H1	J595	H6	C177	A2	R325	D6	R347	B6	R362	A1
C125	B3	C366	E6	C360	D2	C372	H1	J596	H6	C178	A2	R326	D6	R348	B6	R363	A1
C126	B3	C367	E6	C361	D2	C373	H1	J597	H6	C179	A2	R327	D6	R349	B6	R364	A1
C127	A2	C368	E3	C362	D2	C374	H1	J598	H6	C180	A2	R328	D6	R350	B6	R365	A1
C128	A2	C369	E3	C363	D2	C375	H1	J599	H6	C181	A2	R329	D6	R351	B6	R366	A1
C129	A2	C370	E3	C364	D2	C376	H1	J600	H6	C182	A2	R330	D6	R352	B6	R367	A1
C130	A2	C371	E3	C365	D2	C377	H1	J601	H6	C183	A2	R331	D6	R353	B6	R368	A1
C131	A2	C372	E3	C366	D2	C378	H1	J602	H6	C184	A2	R332	D6	R354	B6	R369	A1
C132	A2	C373	E3	C367	D2	C379	H1	J603	H6	C185	A2	R333	D6	R355	B6	R370	A1
C133	B3	C374	E6	C368	D2	C380	H1	J604	H6	C186	A2	R334	D6	R356	B6	R371	A1
C134	B3	C375	E6	C369	D2	C381	H1	J605	H6	C187	A2	R335	D6	R357	B6	R372	A1
C135	B3	C376	E6	C370	D2	C382	H1	J606	H6	C188	A2	R336	D6	R358	B6	R373	A1
C136	B3	C377	E6	C371	D2	C383	H1	J607	H6	C189	A2	R337	D6	R359	B6	R374	A1
C137	A2	C378	E3	C372	D2	C384	H1	J608	H6	C190	A2	R338	D6	R360	B6	R375	A1
C138	A2	C379	E3	C373	D2	C385	H1	J609	H6	C191	A2	R339	D6	R361	B6	R376	A1
C139	A2	C380	E3	C374	D2	C386	H1	J610	H6	C192	A2	R340	D6	R362	B6	R377	A1
C140	A2	C381	E3	C375	D2	C387	H1	J611	H6	C193	A2	R341	D6	R363	B6	R378	A1
C141	A2	C382	E3	C376	D2	C388	H1	J612	H6	C194	A2	R342	D6	R364	B6	R379	A1
C142	A2	C383	E3	C377	D2	C389	H1	J613	H6	C195	A2	R343	D6	R365	B6	R380	A1
C143	A2	C384	E3	C378	D2	C390	H1	J614	H6	C196	A2	R344	D6	R366	B6	R381	A1
C144	A2	C385	E3	C379	D2	C391	H1	J615	H6	C197	A2	R345	D6	R367	B6	R382	A1
C145	A2	C386	E3	C380	D2	C392	H1	J616	H6	C198	A2	R346	D6	R368	B6	R383	A1
C146	A2	C387	E3	C381	D2	C393	H1	J617	H6	C199	A2	R347	D6	R369	B6	R384	A1
C147	A2	C388	E3	C382	D2	C394	H1	J618	H6	C200	A2	R348	D6	R370	B6	R385	A1
C148	A2	C389	E3	C383	D2	C395	H1	J619	H6	C201	A2	R349	D6	R371	B6	R386	A1
C149	A2	C390	E3	C384	D2	C396	H1	J620	H6	C202	A2	R350	D6	R372	B6	R387	A1
C150	A2	C391	E3	C385	D2	C397	H1	J621	H6	C203	A2	R351	D6	R373	B6	R388	A1
C151	A2	C392	E3	C386	D2	C398	H1	J622	H6	C204	A2	R352	D6	R374	B6	R389	A1
C152	A2	C393	E3	C387	D2	C399	H1	J623	H6	C205	A2	R353	D6	R375	B6	R390	A1
C153	A2	C394	E3	C388	D2	C400	H1	J624	H6	C206	A2	R354	D6	R376	B6	R391	A1
C154	A2	C395	E3	C389	D2	C401	H1	J625	H6	C207	A2	R355	D6	R377	B6	R392	A1
C155	A2	C396	E3	C390	D2	C402	H1	J626	H6	C208	A2	R356	D6	R378	B6	R393	A1
C156	A2	C397	E3	C391	D2	C403	H1	J627	H6	C209	A2	R357	D6	R379	B6	R394	A1
C157	A2	C398	E3	C392	D2	C404	H1	J628	H6	C210	A2	R358	D6	R380	B6	R395	A1
C158	A2	C399	E3	C393	D2	C405	H1	J629	H6	C211	A2	R359	D6	R381	B6	R396	A1
C159	A2	C400	E3	C394	D2	C406	H1	J630	H6	C212	A2	R360	D6	R382	B6	R397	A1
C160	A2	C401	E3	C395	D2	C407	H1	J631	H6	C213	A2	R361	D6	R383	B6	R398	A1
C161	A2	C402	E3	C396	D2	C408	H1	J632	H6	C214	A2	R362	D6	R384	B6	R399	A1
C162	A2	C403	E3	C397	D2	C409	H1	J633	H6	C215	A2	R363	D6	R385	B6	R400	A1
C163	A2	C404	E3	C398	D2	C410	H1	J634	H6	C216	A2	R364	D6	R386	B6	R401	A1
C164	A2	C405	E3	C399	D2	C411	H1	J635	H6	C217	A2	R365	D6	R387	B6	R402	A1
C165	A2	C406	E3	C400	D2	C412	H1	J636	H6	C218	A2	R366	D6	R388	B6	R403	A1
C166	A2	C407	E3	C401	D2	C413	H1	J637	H6	C219	A2	R367	D6	R389	B6	R404	A1
C167	A2	C408	E3	C402	D2	C414	H1	J638	H6	C220	A2	R368	D6	R390	B6	R405	A1
C168	A2	C409	E3	C403	D2	C415	H1	J639	H6	C221	A2	R369	D6	R391	B6	R406	A1
C169	A2	C410	E3	C404	D2	C416	H1	J640	H6	C222	A2	R370	D6	R392	B6	R407	A1
C170	A2	C411	E3	C405	D2	C417	H1	J641	H6	C223	A2	R371	D6	R393	B6	R408	A1
C171	A2	C412	E3	C406	D2	C418	H1	J642	H6	C224	A2	R372	D6	R394	B6	R409	A1
C172	A2	C413	E3	C407	D2	C419	H1	J643	H6	C225	A2	R373	D6	R395	B6	R410	A1
C173	A2	C414	E3	C408	D2	C420	H1	J644	H6	C226	A2	R374	D6	R396	B6	R411	A1
C174	A2	C415	E3	C409	D2	C421	H1	J645	H6	C227	A2	R375	D6	R397	B6	R412	A1
C175	A2	C416	E3	C410	D2	C422	H1	J646	H6	C228	A2	R376	D6	R398	B6	R413	A1
C176	A2	C417	E3	C411	D2	C423	H1	J647	H6	C229	A2	R377	D6	R399	B6	R414	A1
C177	A2	C418	E3	C412	D2	C424	H1	J648	H6	C230	A2	R378	D6	R400	B6	R415	A1
C178	A2	C419	E3	C413	D2	C425	H1	J649	H6	C231	A2	R379	D6	R401	B6	R416	A1
C179	A2	C420	E3	C414	D2	C426	H1	J650	H6	C232	A2	R380	D6	R402	B6	R417	A1
C180	A2	C421	E3	C415	D2	C427	H1	J651	H6	C233	A2	R381	D6	R403	B6	R418	A1
C181	A2	C422	E3	C416	D2	C428	H1	J652	H6	C234	A2	R382	D6	R404	B6	R419	A1
C182	A2	C423	E3	C417	D2	C429	H1	J653	H6	C235	A2	R383	D6	R405	B6	R420	A1
C183	A2	C424	E3	C418	D2	C430	H1	J654	H6	C236	A2	R384	D6	R406	B6	R421	A1
C184	A2	C425	E3	C419	D2	C431	H1	J655	H6	C237	A2	R385	D6	R407	B6	R422	A1
C185	A2	C426	E3	C420	D2	C432	H1	J656	H6	C238	A2	R386	D6	R408	B6	R423	A1
C186	A2	C427	E3	C421	D2	C433	H1	J657	H6	C239	A2	R387	D6	R409	B6	R424	A1
C187	A2	C428	E3	C422	D2	C434	H1	J658	H6	C240	A2	R388	D6	R410	B6	R425	A1
C188	A2	C429	E3	C423	D2	C435	H1	J659	H6	C241	A2	R389	D6	R411	B6	R426	A1
C189	A2	C430	E3	C424	D2	C436	H1	J660	H6	C242	A2	R390	D6	R412	B6	R427	A1
C190	A2	C431	E3	C425	D2	C437	H1	J661	H6	C243	A2	R391	D6	R413	B6	R428	A1
C191	A2	C432	E3	C426	D2	C438	H1	J662	H6	C244	A2	R392	D6	R414	B6	R429	A1
C192	A2	C433	E3	C427	D2	C439	H1	J663	H6	C245	A2	R393	D6	R415	B6	R430	A1
C193	A2	C434	E3	C428	D2	C440	H1	J664	H6	C246	A2	R394	D6	R416	B6	R431	A1
C194	A2	C435	E3	C429	D2	C441	H1	J665	H6								

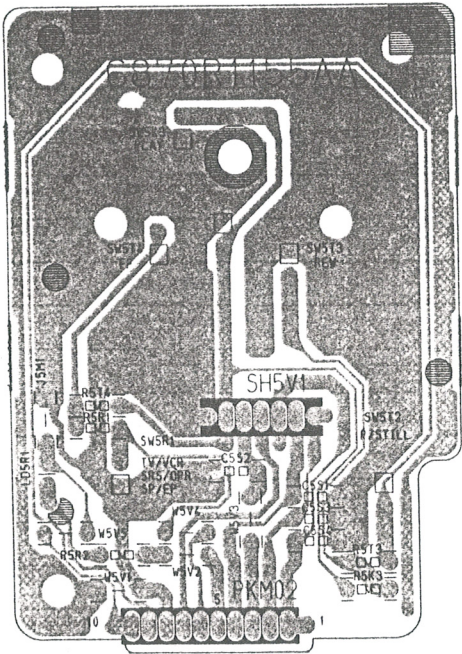
2. LED CLOCK P.C.Board



(Solder Side)

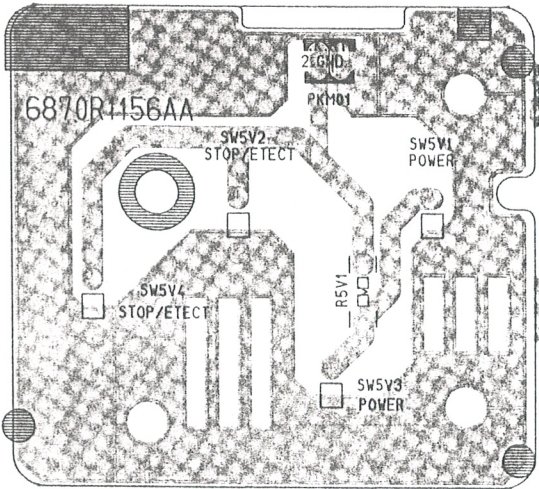
3. SHUTTLE & KEY P.C.Board

★ OPTION PART



(Solder Side)

★ OPTION PART



(Solder Side)

MEMO

SECTION 4 MECHANISM CONTENTS

DECK MECHANISM PARTS LOCATIONS

- Top View 4-1
- Bottom View 4-1

DECK MECHANISM DISASSEMBLY

1. Drum Assembly 4-2
2. Plate Assembly Top 4-3
3. Holder Assembly CST 4-3
4. Guide CST 4-3
5. Bracket Side(L)/Bracket Assembly Door
.....4-3
6. Arm Assembly F/L 4-3
7. Lever Assembly S/W 4-3
8. Arm Assembly Cleaner 4-5
9. Head F/E 4-5
10. Base Assembly A/C Head 4-5
11. Brake Assembly S 4-6
12. Brake Assembly T 4-6
13. Arm Assembly Tension 4-6
14. Reel S/Reel T 4-6
15. Support CST 4-7
16. Base Assembly P4 4-7
17. Opener Lid 4-7
18. Arm Assembly T/up 4-7
19. Arm Assembly Pinch 4-7
20. Belt Capstan/Motor Capstan 4-8
21. Clutch Assembly D33 4-8
22. Lever F/R 4-8
23. Gear Assembly H-up/D 4-8
24. Bracket Assembly Jog 4-9
25. Guide Rack F/L, Gear Rack F/L 4-9
26. Brake Assembly Capstan 4-9
27. Gear Drive/Gear Cam/Gear Connector
.....4-10
28. Bracket Assembly L/D Motor 4-10
29. Gear Sector 4-11
30. Base Tension/Plate Slider/Lever Tension
.....4-11
31. Gear Assembly P3/Gear Assembly P2
.....4-12
32. Base Assembly P3/Base Assembly P2
.....4-12
33. Arm Assembly Idler Jog 4-12

DECK MECHANISM ADJUSTMENT

- Tools and Fixtures for Service 4-13
- 1. Mechanism and Mode Switch Alignment
Check 4-14
- 2. Deck Preparation for Adjustment 4-15
- 3. Checking Torque 4-15
- 4. Guide Roller Height Adjustment 4-16
 - 4-1. Preliminary Adjustment 4-16
 - 4-2. Precise Adjustment 4-16
- 5. Audio/Control (A/C) Head Adjustment 4-17
 - 5-1. Preliminary Adjustment 4-17
 - 5-2. Confirmation of Tape Path between
Pinch Roller and Take-up Guide 4-18
 - 5-3. Precise Adjustment(Azimuth Adjustment)
.....4-18
- 6. X-Value Adjustment 4-18
- 7. Adjustment after Replacing Drum Assembly
(Video Heads) 4-19
- 8. Check the Tape Travel after Reassembling
Deck Mechanism 4-19
 - 8-1. Checking Audio and RF Locking Time
during Playback after CUE or REV
.....4-19
 - 8-2. Checking Tape Curling or Jamming
.....4-19

MAIN TENANCE/INSPECTION PROCEDURE

1. Check before starting Repairs 4-20
2. Required Maintenance 4-21
3. Scheduled Maintenance 4-21
4. Supplies Required for Inspection and
Maintenance 4-21
5. Maintenance Procedure 4-21
 - 5-1. Cleaning 4-21
 - 5-2. Greasing 4-22

MACHANISM TROUBLESHOOTING GUIDE

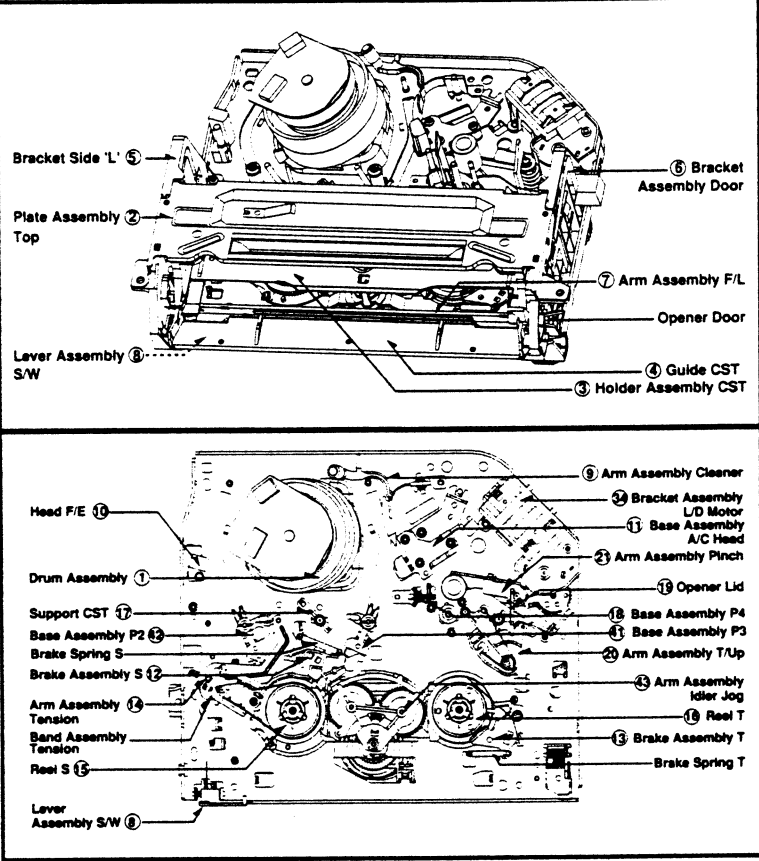
1. Deck Mechanism 4-23
2. Front Loading Mechanism 4-26

EXPLODED VIEWS

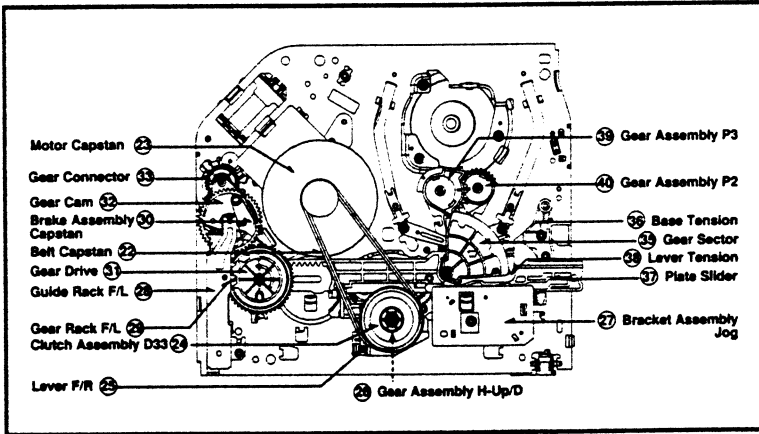
1. Front Loading Mechanism Section 4-28
2. Moving Mechanism Section (1) 4-29
3. Moving Mechanism Section (2) 4-30

DECK MECHANISM PARTS LOCATIONS

• Top View



• Bottom View



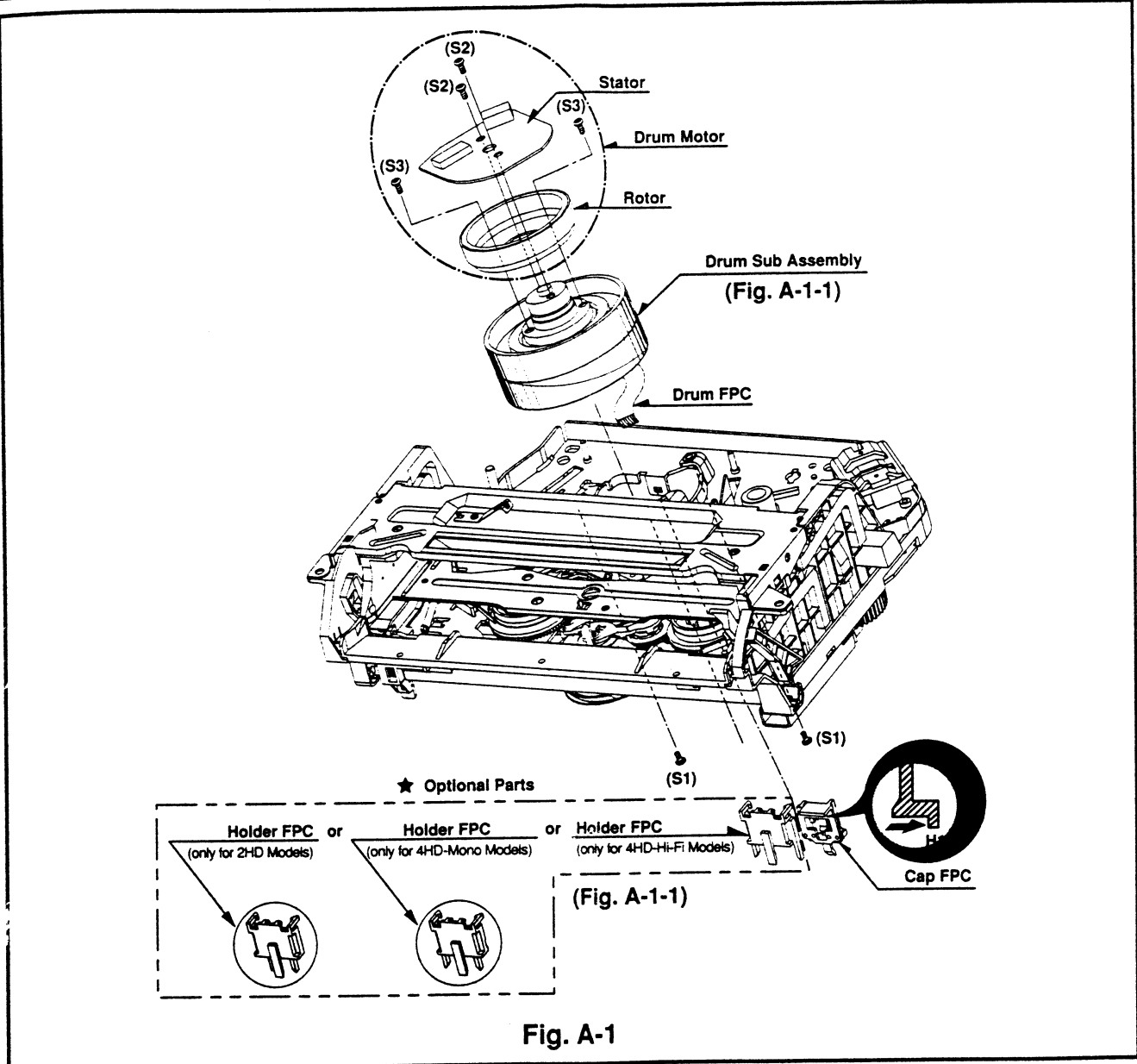
NOTE : When reassembly perform the procedure in the reverse order.

- 1) When reassembling, confirm Mechanism and Mode Switch Alignment Position (Refer to Page 4-14)
- 2) When disassembling, the Parts for Starting No. Should be removed first.

Pracudure	Part	Fixing Type	Fig-ure
Starting No.			
1	Drum Assembly	3 Screws , Cap FPC	A-1
2	Plate Assembly Top	Two Hooks	A-2
3	Holder Assembly CST	Chassis Hole	A-2
4	Guide CST	2 Hooks	A-2
2,3,4	Bracket Side (L)	1 Screw	A-2
2,3,4	Bracket Assembly Door	1 Screw	A-2
2,3,4,5,6	Arm Assembly F/L	Chassis Hole	A-2
2,3,4,5	Lever Assembly S/W	Chassis Hole	A-2
9	Arm Assembly Cleaner	Chassis Embossing	A-3
10	Head F/E	2 Hooks	A-3
11	Base Assembly A/C Head	1 Screw	A-3
12	Brake Assembly S	Chassis Hole	A-4
2,3	Brake Assembly T	Chassis Hole	A-4
2,3,12	Arm Assembly Tension	Chassis Hole	A-4
2,3,12,14	Reel S	Chassis Shaft	A-4
2,3,13	Reel T	Chassis Shaft	A-4
17	Support CST	Chassis Embossing	A-5
18	Base Assembly P4	Chassis Embossing	A-5
19	Opener Lid	Chassis Embossing	A-5
20	Arm Assembly T/Up	Chassis Embossing	A-5
21	Arm Assembly Pinch	Chassis Shaft	A-5

Pracudure	Part	Fixing Type	Fig-ure
Starting No.			
22	Belt Capstan	3 Screws	A-6
23	Motor Capstan	1 Washer	A-6
24	Clutch Assembly D33	1 Hook	A-6
25	Lever F/R	2 Washers	A-6
26	Gear Assembly H-Up/D	1 Screw	A-7
27	Bracket Assembly Jog	1 Screw	A-7
28	Guide Rack F/L	Chassis Shaft	A-7
29	Gear Rack F/L	Chassis Shaft	A-7
30	Brake Assembly Capstan	1 Washer	A-8
31	Gear Drive	Chassis Shaft	A-8
32	Gear Cam	Chassis Shaft	A-8
33	Gear Connector	3 Washers	A-9
34	Bracket Assembly L/D Motor	1 Screw	A-9
35	Gear Sector	Chassis Shaft	A-9
36	Base Tension	Chassis Shaft	A-9
37	Plate Slider	Chassis Shaft	A-9
22, 24, 25, 27, 28, 29, 31, 35, 36	Lever Tension	Chassis Hole	A-9
22, 24, 25, 27, 28, 29, 31, 35, 36	Lever Tension	Chassis Hole	A-9
39	Gear Assembly P3	2 Hooks	A-10
40	Gear Assembly P2	2 Hooks	A-10
41	Base Assembly P3	Chassis Hole	A-10
42	Base Assembly P2	Chassis Hole	A-10
1, 2	Arm Assembly Idler Jog	1 Hook	A-10

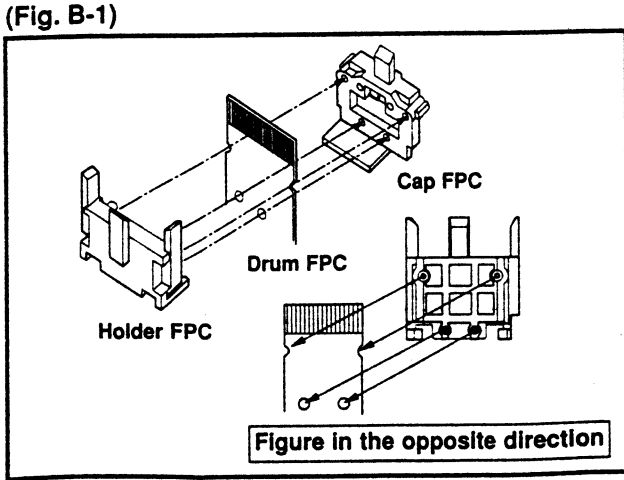
DECK MECHANISM DISASSEMBLY



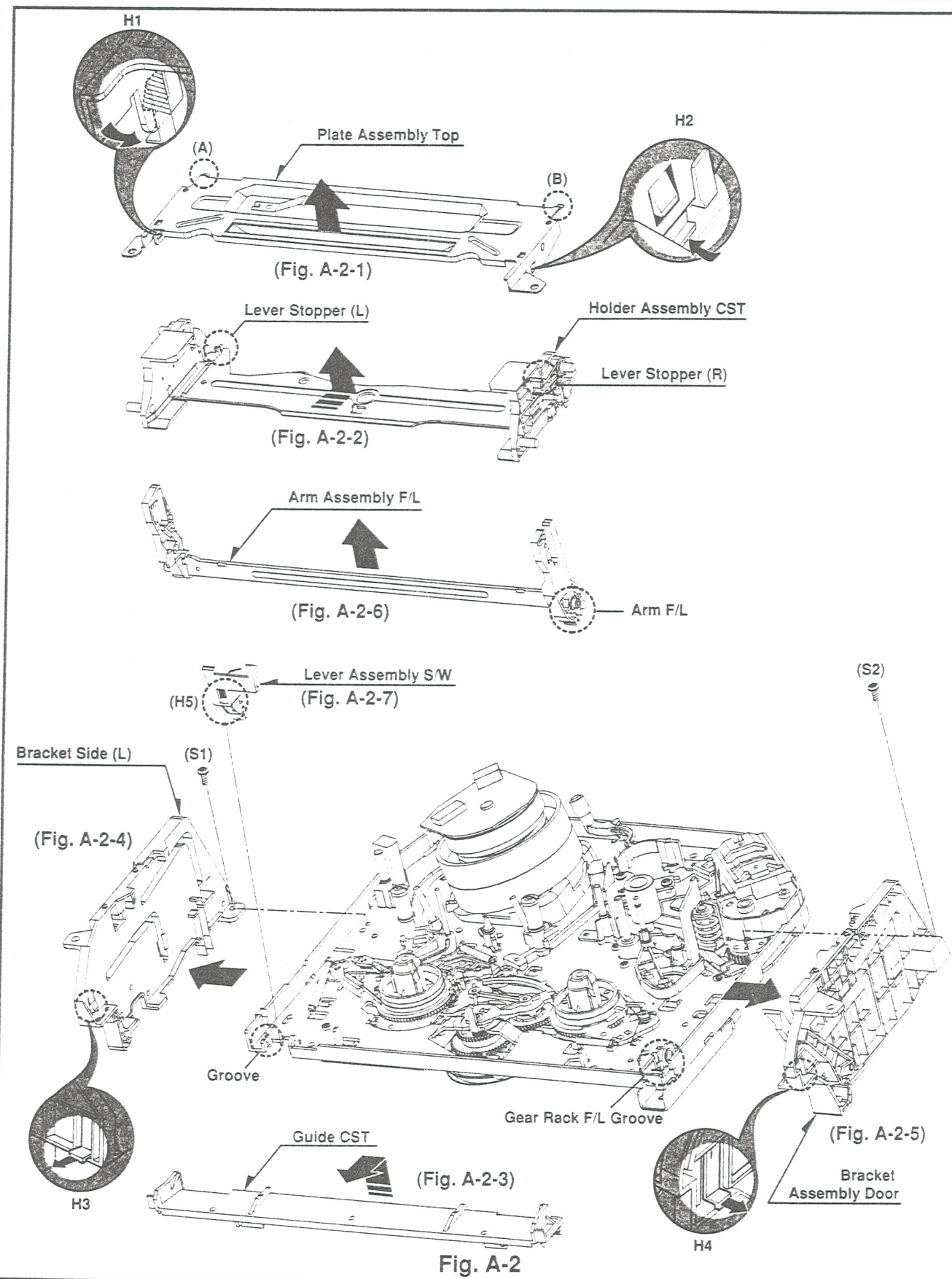
- 1. Drum Assembly (Fig. A-1-1)**
- 1) Unhook the (H1) on the back side of the Chassis and separate the Cap FPC.
 - 2) Remove three Screws (S1) and lift up the Drum Assembly.
 - 3) Remove two Screws (S2) and Separate the Stator of Drum Motor.
 - 4) Remove two Screws (S3) and Separate the Rotor of Drum Motor from the Drum Sub Assembly.

NOTE

- (1) When reassembling Cap FPC, two Holes of Drum FPC are inserted to the two Bosses of Holder FPC correctly. (Refer to Fig. B-1)



DECK MECHANISM DISASSEMBLY



DECK MECHANISM DISASSEMBLY

2. Plate Assembly Top (Fig. A-2-1)

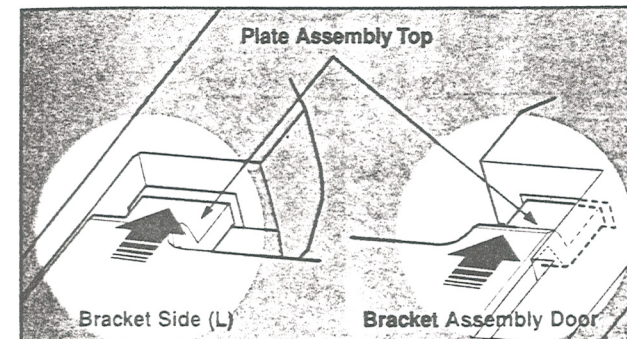
- 1) Unhook the (H1) and separate the Left Side.
- 2) Unhook the (H2) and lift up the Plate Assembly Top.

NOTE

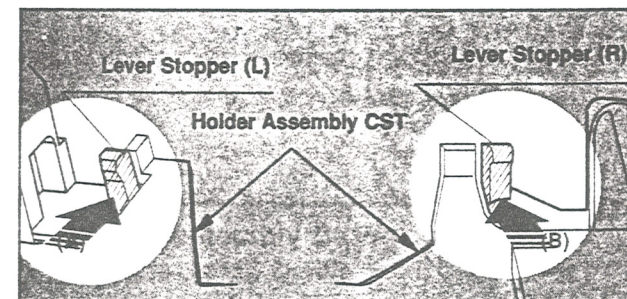
- (1) When reassembling, confirm (A),(B) Part of the Plate Assembly Top is inserted to the (L),(R) Grooves of the Bracket Side(L) and Bracket Assembly Door.

3. Holder Assembly CST (Fig.A-2-2)

- 1) Push the Lever Stopper(L),(R) in the direction of the arrows (A), (B), and move the Holder Assembly CST.

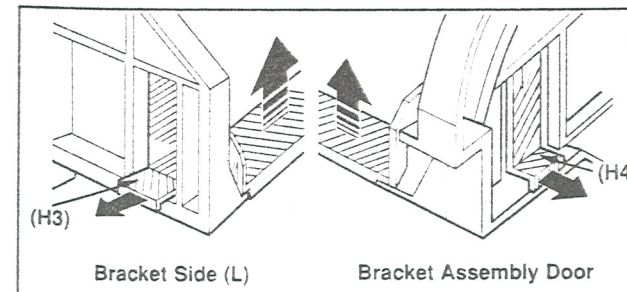


- 2) Push the Bracket Assembly Door to the right and lift up the Holder Assembly CST along the Guide Groove of the Bracket Assembly Door.



4. Guide CST (Fig.A-2-3)

- 1) Push two Hooks(H3),(H4) in the direction of the arrow and separate the left side.
- 2) Unhook (H5),(H6) as above No.1) and disassemble the Guide CST in the direction of the arrow.



5. Bracket Side(L) (Fig. A-2-4)/ Bracket Assembly Door (Fig.A-2-5)

- 1) Remove the Screw (S1) and disassemble the Bracket Side(L) in the front.

- 2) Remove the Screw (S2) and disassemble the Bracket Assembly Door in the front.

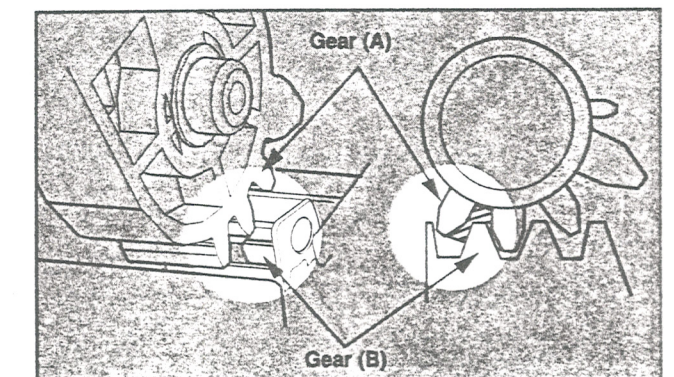
6. Arm Assembly F/L (Fig. A-2-6)

- 1) Push the Arm Assembly F/L to the left and lift up it.

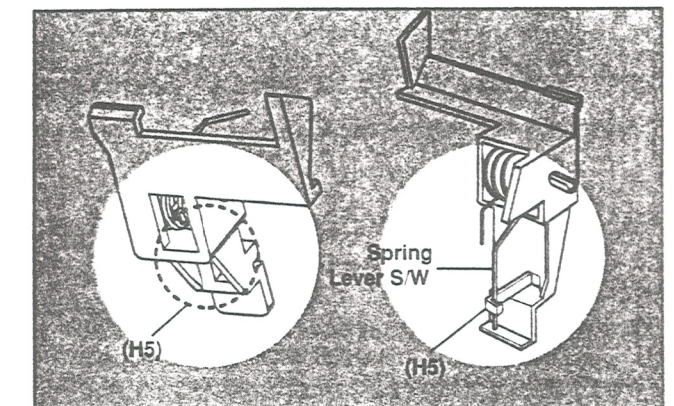
NOTE

- (1) When reassembling, confirm that the Gear(A) of the Arm F/L and the Gear(B) of the Gear Rack F/L are assembled as below.

7. Lever Assembly S/W (Fig. A-2-7)

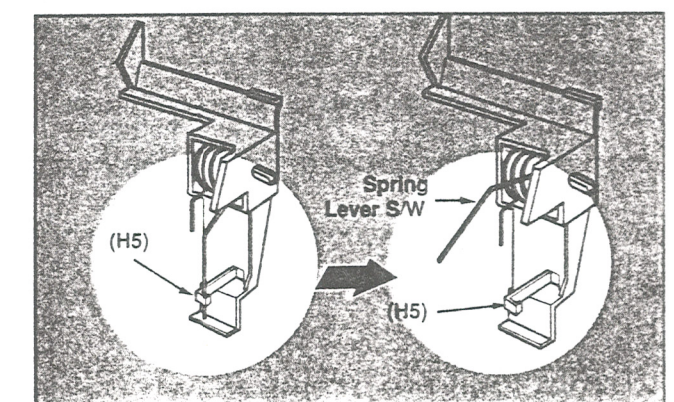


- 1) Hook the Spring Lever S/W on (H5).
- 2) Lift up the left side of the Lever S/W from the Groove(A) of the Chassis.

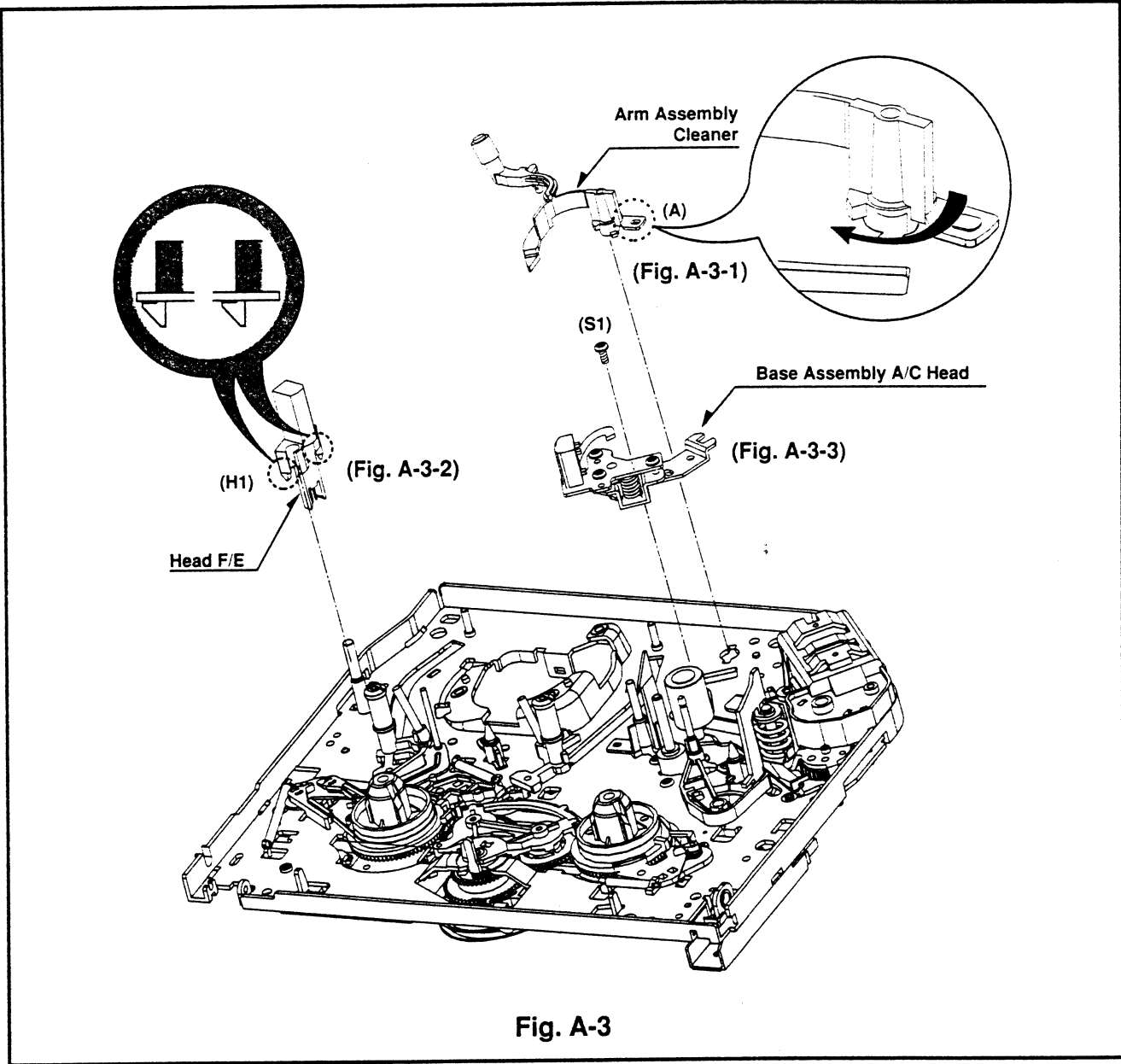


NOTE

- (1) Place the Spring Lever S/W of the above (No.1) as original position.



DECK MECHANISM DISASSEMBLY



8. Arm Assembly Cleaner(Fig. A-3-1)

- 1) Break away the (A) part shown above Fig. A-3-1 from the Embossing of the Chassis in the clockwise direction and lift up the Arm Assembly Cleaner.

9. Head F/E (Fig. A-3-2)

- 1) Unhook the two Hooks (H1) on the back side of the Chassis and lift up the Head F/E.

10. Base Assembly A/C Head (Fig. A-3-3)

- 1) Remove the Screw (S1) and lift up the Base Assembly A/C Head.

Fig. A-3

DECK MECHANISM DISASSEMBLY

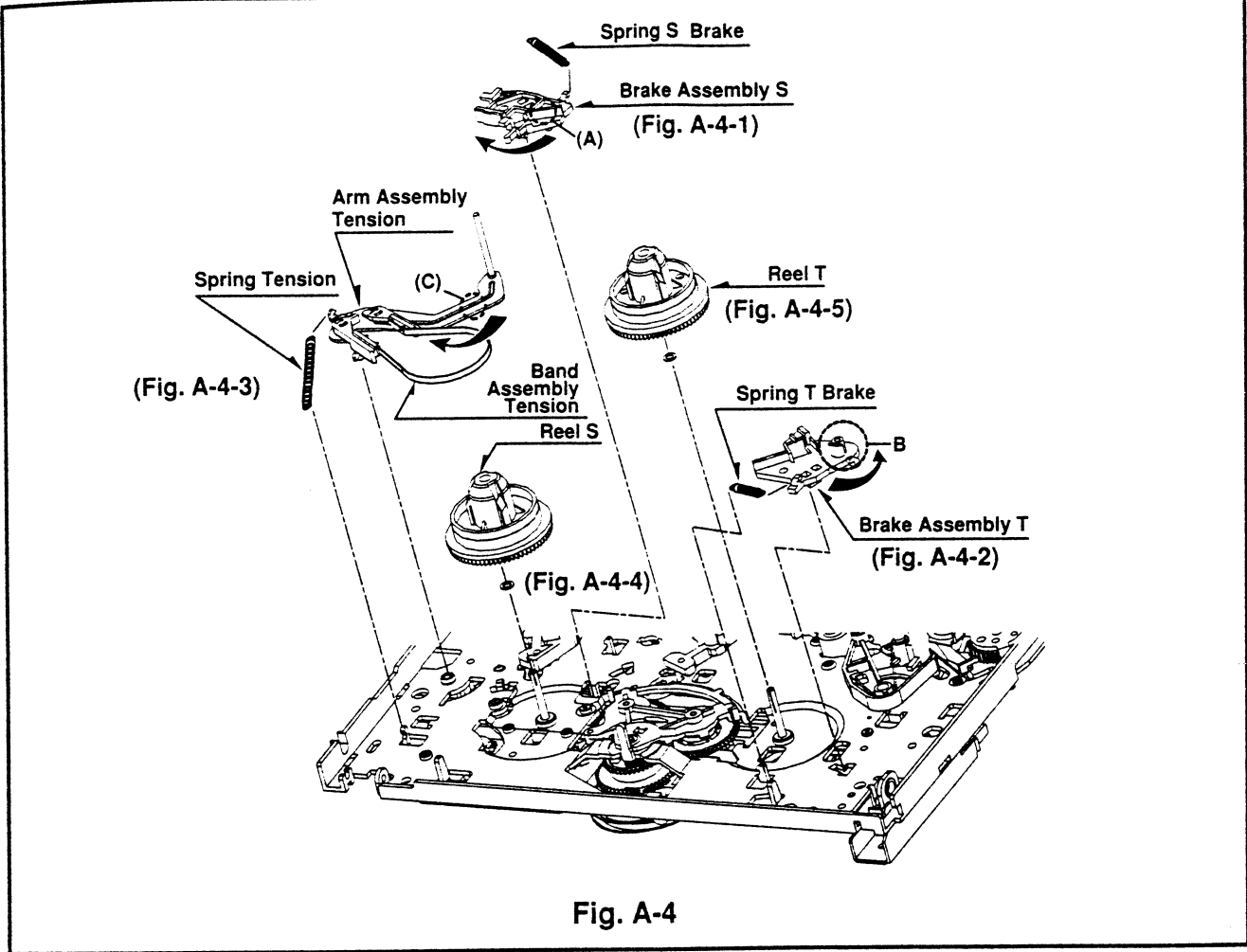


Fig. A-4

11. Brake Assembly S (Fig. A-4-1)

- 1) Remove the Spring S Brake.
- 2) Hold the (A) part shown above Fig. A-4-1 and turn to the clockwise direction, and then lift up the Brake Assembly S.

NOTE

- (1) When reassembling, be careful not to change the Spring with below No.12.(Refer to Fig. B-2).

12. Brake Assembly T (Fig. A-4-2)

- 1) Remove the Spring T Brake.
- 2) Hold the (B) part shown above Fig. A-4-2 and turn to the counterclockwise direction, and then lift up the Brake Assembly T.

NOTE

- (1) When reassembling, be careful not to change the Spring with above No.11.(Refer to Fig. B-2).

(Difference for Springs)

(Fig. B-2)

	Spring T Brake Color (Black)
	Spring S Brake
	Spring Tension

13. Arm Assembly Tension (Fig. A-4-3)

- 1) Remove the Spring Tension.
- 2) Hold the (C) part shown above Fig. A-4-3 and turn to the clockwise direction, and then lift up the Arm Assembly Tension.

NOTE

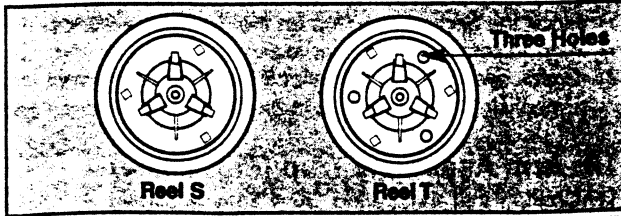
- (1) When reassembling, be careful not to change the Spring with above No.11,12.(Refer to Fig. B-2).

14. Reel S (Fig. A-4-4) & Reel T (Fig. A-4-5)

- 1) Lift up the Reel S and Reel T.

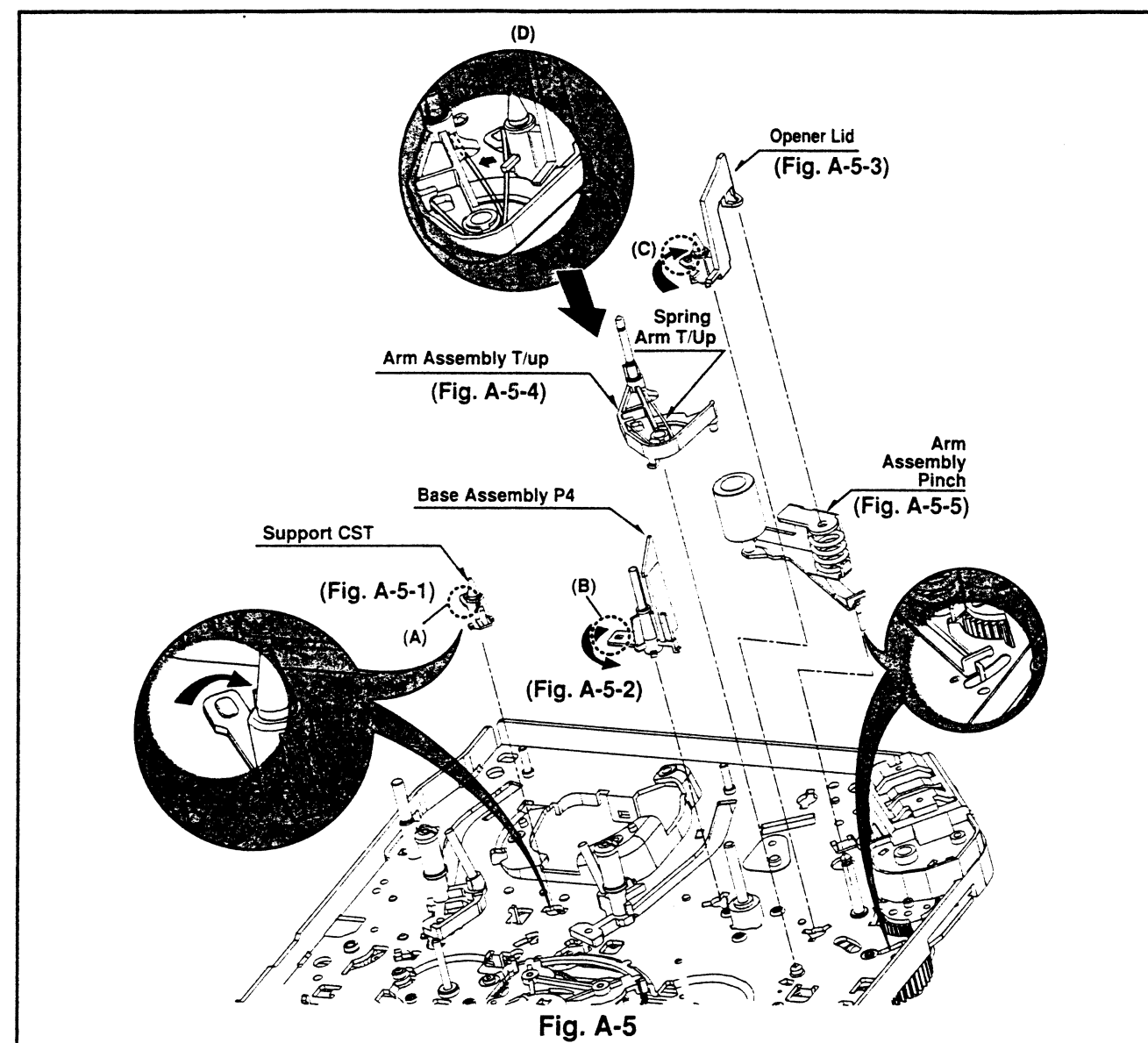
NOTE

- (1) When reassembling, be careful not to change the Reel S and Reel T each other.



- (2) Confirm two Slide Washers under the Reel S and Reel T.

DECK MECHANISM DISASSEMBLY



15. Support CST (Fig. A-5-1)

- 1) Break away the (A) part shown above Fig. A-5-1 from the Embossing of the Chassis in the clockwise direction, and lift up the Support CST.

16. Base Assembly P4 (Fig. A-5-2)

- 1) Break away the (B) part shown above Fig. A-5-2 from the Embossing of the Chassis in the counterclockwise direction and lift up the Base Assembly P4.

17. Opener Lid (Fig. A-5-3)

- 1) Hook the Spring Arm T/up on the Split digged under the Arm Assembly T/up. (Refer to Fig. A-5-4(D)).
- 2) Break away the (C) Part of the Opener Lid from the Embossing of the Chassis in the Clockwise direction and lift up the Opener Lid.

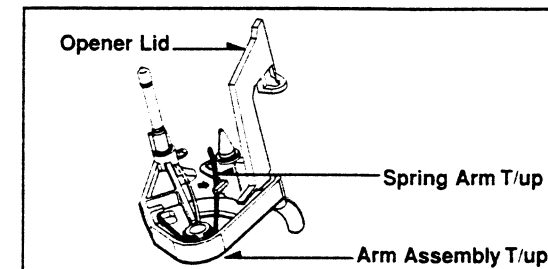
18. Arm Assembly T/up (Fig. A-5-4)

- 1) Confirm that the Spring Arm T/up is placed as above (No.17.1).

- 2) Lift up the Arm Assembly T/up.

NOTE

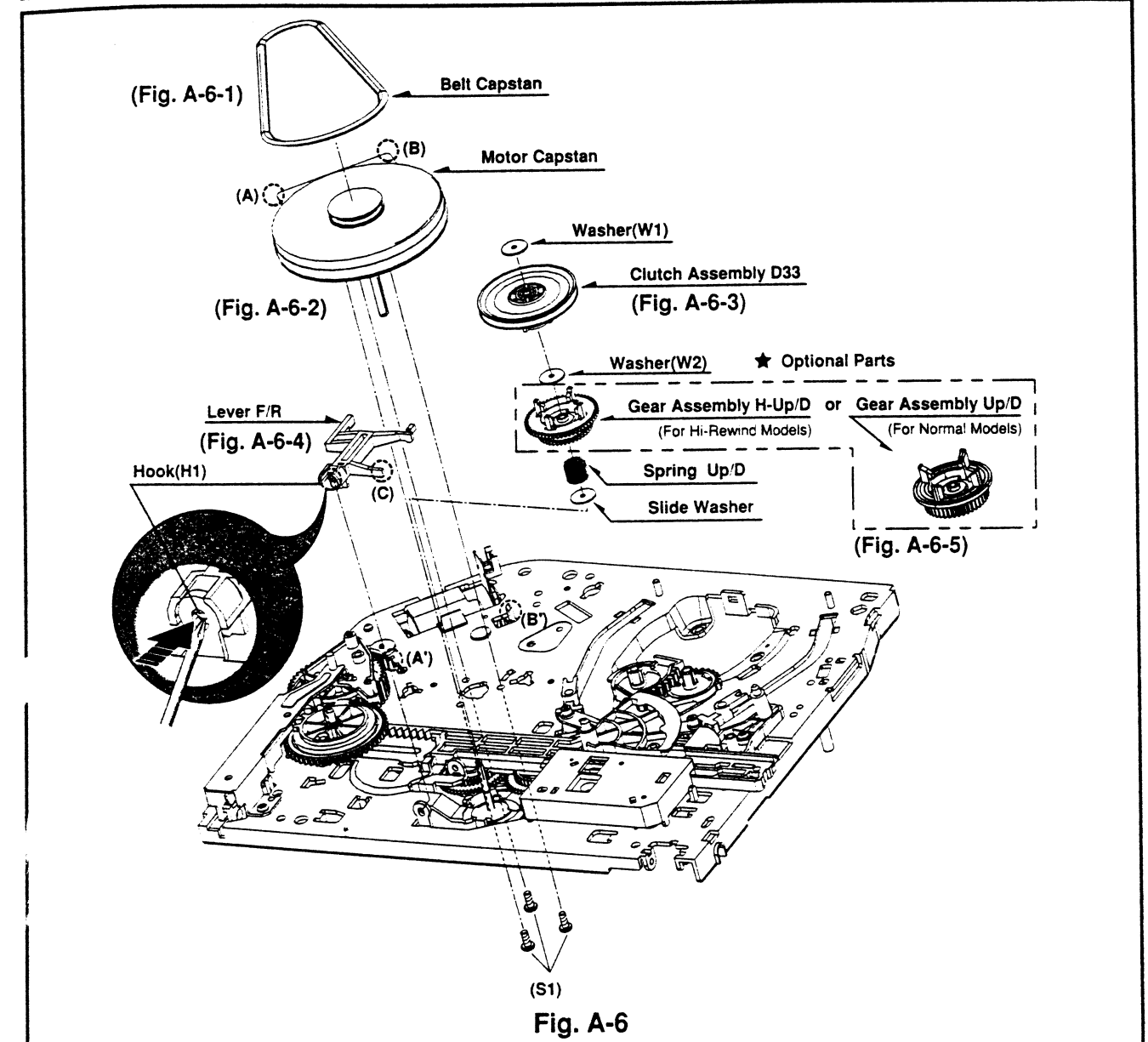
- (1) When reassembling, unhook the Spring Arm T/up Shown above (No.17.1) to the original position.



19. Arm Assembly Pinch (Fig. A-5-5)

- 1) Lift up the Arm Assembly Pinch.

DECK MECHANISM DISASSEMBLY



20. Belt Capstan (Fig. A-6-1)/ Motor Capstan (Fig. A-6-2)

- 1) Remove the Belt Capstan.
- 2) Remove three Screws(S1) on the back side of the Chassis and lift up the Motor Capstan.

NOTE

- (1) When reassembling, Confirm the (A), (B) parts of Motor Capstan is located to the (A'), (B') of the Chassis.

21. Clutch Assembly D33 (Fig. A-6-3)

- 1) Remove the Washer(W1) and lift up the Clutch Assembly D33.

22. Lever F/R (Fig. A-6-4)

- 1) Unhook the (H1) shown above Fig. A-6-4 and lift up the Lever F/R.

NOTE

- (1) When reassembling, move the (C) part of the Lever F/R up and down, then confirm if it is returned to original position.

23. Gear Assembly H-Up/D or Gear Assembly Up/D (Fig. A-6-5)

- 1) Remove the Washer(W2) and lift up the Gear Assembly H-up/D.
- 2) Remove the Spring Up/D.
- 3) Remove the Slide Washer.

NOTE

- (1) Gear Assembly H-Up/D is for Hi-Rewind Models.
- (2) Gear Assembly Up/D is for Normal Models except Hi-Rewind Models.

DECK MECHANISM DISASSEMBLY

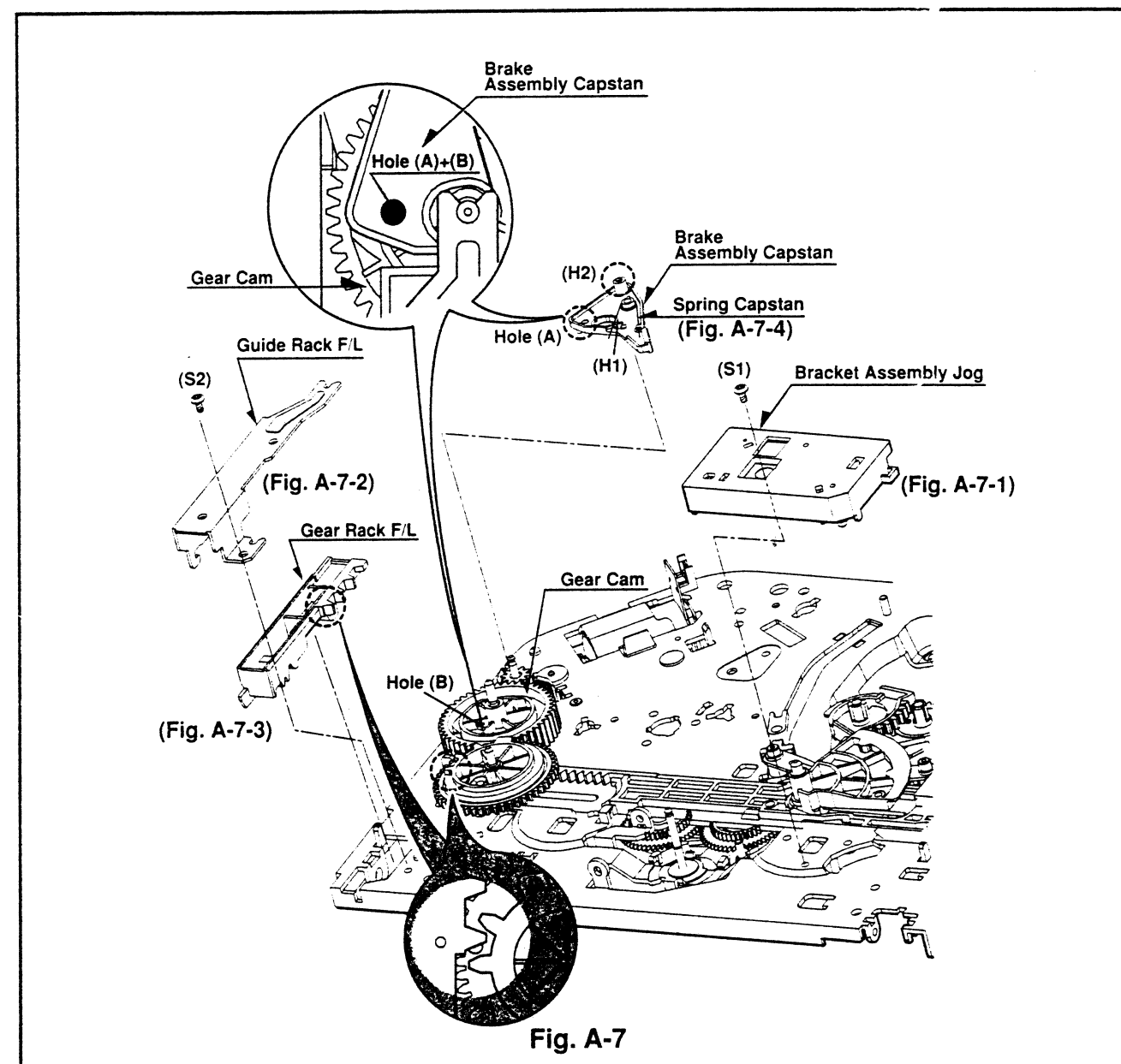


Fig. A-7

24. Bracket Assembly Jog (Fig. A-7-1)

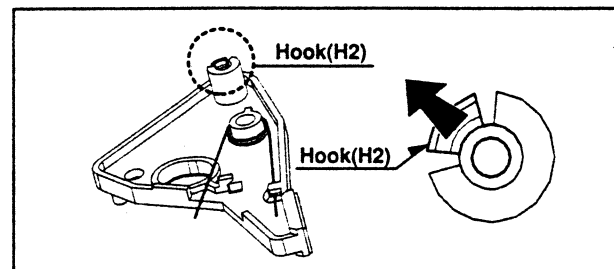
- 1) Remove the Screw(S1) and lift up the Bracket Assembly Jog.

25. Guide Rack F/L (Fig. A-7-2)/ Gear Rack F/L (Fig. A-7-3)

- 1) Remove the Screw(S2) and lift up the Guide Rack F/L.
- 2) Lift up the Gear Rack F/L.

26. Brake Assembly Capstan (Fig. A-7-4)

- 1) Hook the Spring Capstan on the Hook(H1).
- 2) Unhook the Hook(H2) and lift up the Brake Assembly Capstan.(Refer to Fig. to the right)



NOTE

- (1) When reassembling, confirm that the Hole(A) of the Brake Assembly Capstan is aligned to the Hole(B) of the Gear Cam.
(Refer to above Fig. A-7-4).

DECK MECHANISM DISASSEMBLY

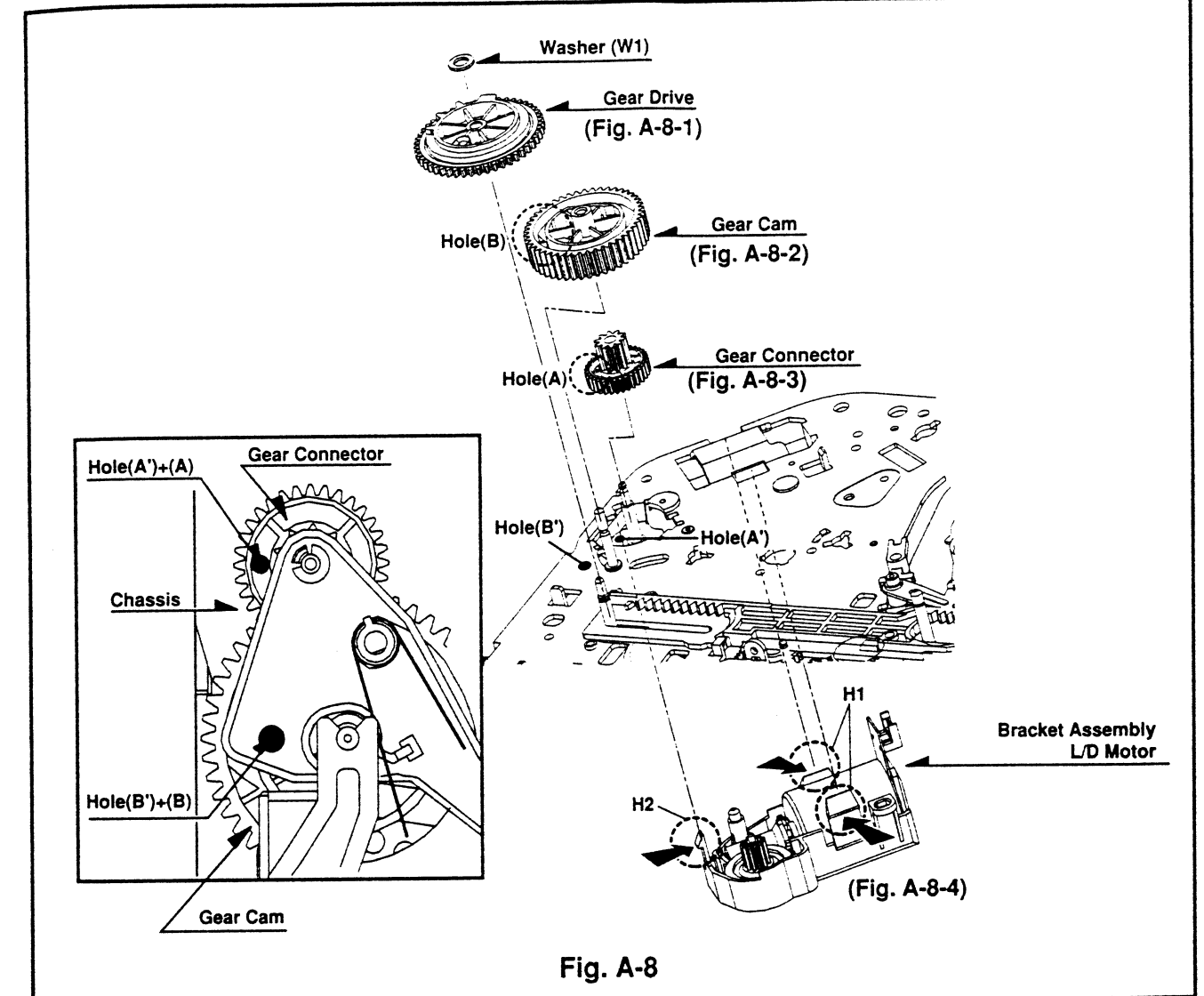


Fig. A-8

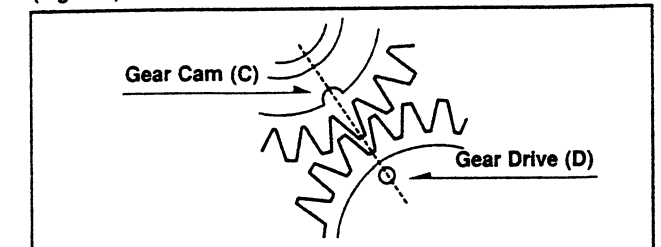
27. Gear Drive (Fig. A-8-1)/ Gear Cam (Fig. A-8-2)/ Gear Connector (Fig. A-8-3)

- 1) Remove the Washer(W1) and lift up the Gear Drive.
- 2) Lift up the Gear Cam.
- 3) Lift up the Gear Connector.

NOTE

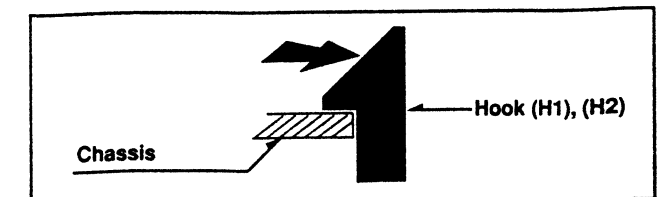
- (1) When reassembling, confirm that the Hole (A) of the Gear Connector is aligned to the Hole (A') of the Chassis (Fig. A-8-3).
- (2) When reassembling, confirm that the Hole (B) of the Gear Cam is aligned to the Hole (B') of the Chassis (Fig. A-8-2).
- (3) When reassembling, confirm that the (C) part of the Gear Cam is aligned to the (D) part of the Gear Drive as shown Fig. B-3

(Fig. B-3)

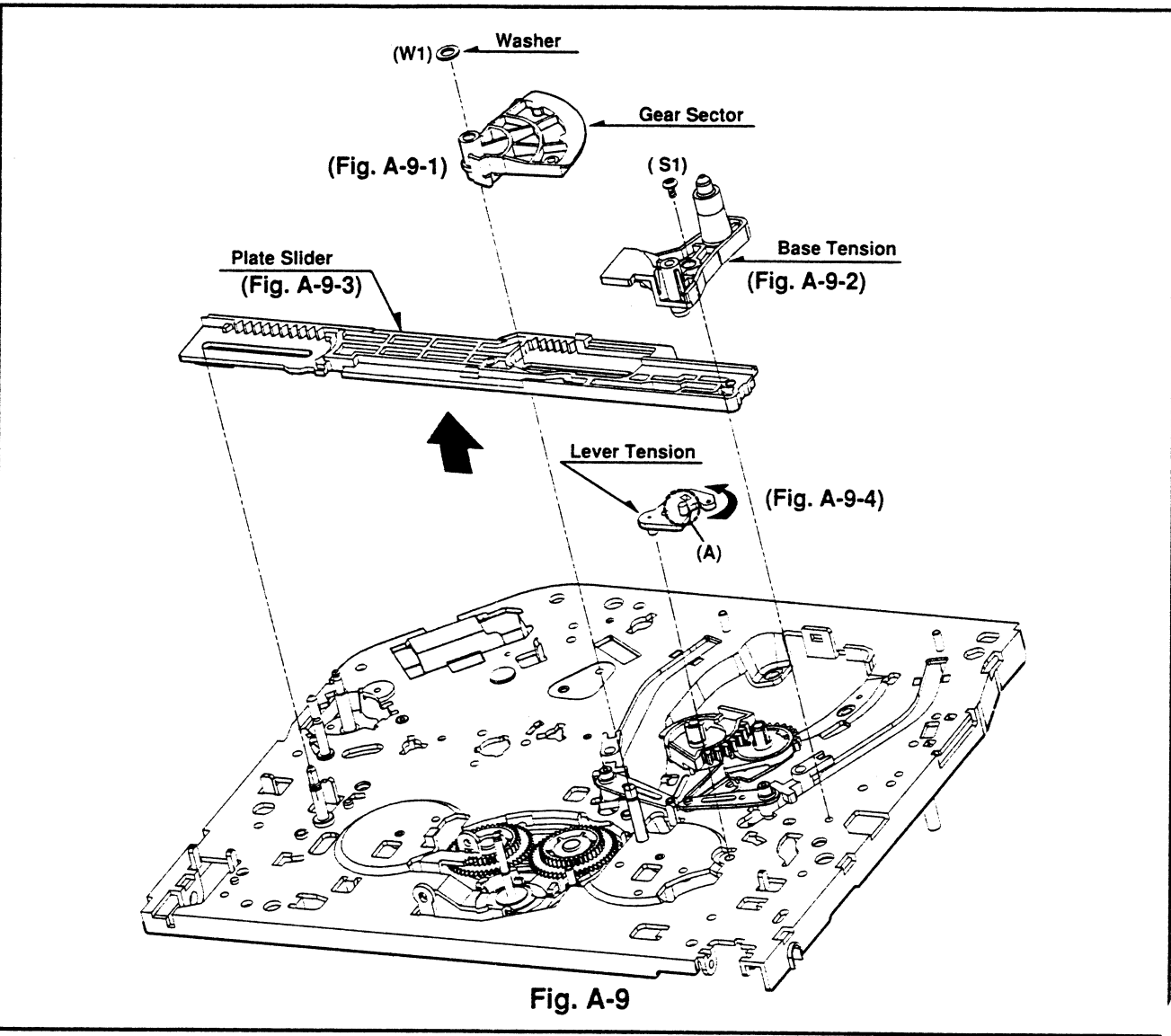


28. Bracket Assembly L/D Motor (Fig. A-8-4)

- 1) Unhook the three Hooks(H1),(H2) and push down the Bracket Assembly L/D Motor.



DECK MECHANISM DISASSEMBLY



29. Gear Sector (Fig. A-9-1)

- 1) Remove the Washer(W1) and lift up the Gear Sector.

30. Base Tension (Fig. A-9-2)/

Plate Slider (Fig. A-9-3)/

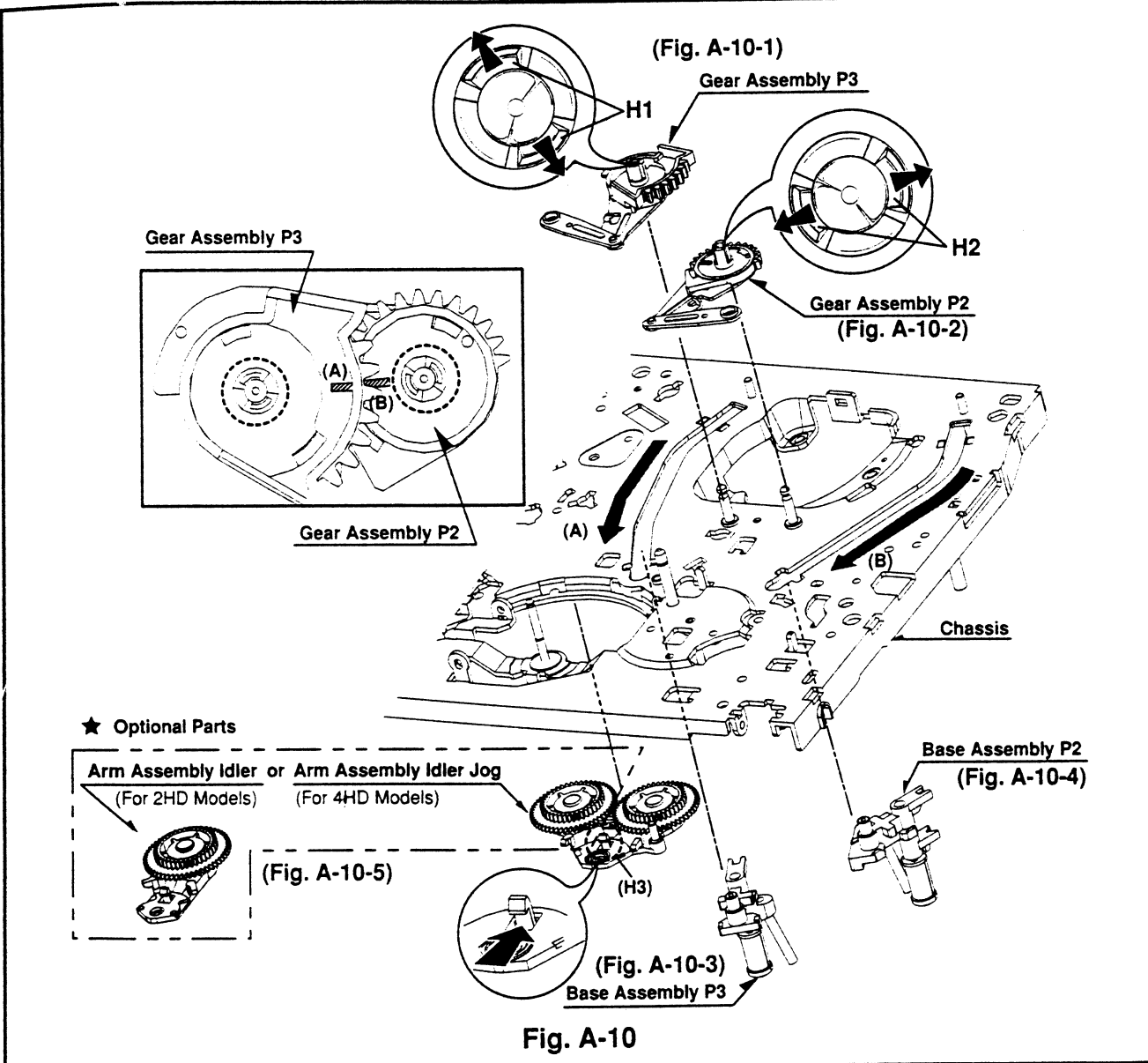
Lever Tension (Fig. A-9-4)

- 1) Remove the Screw(S1) and lift up the Base Tension.
- 2) Lift up the Plate Slider.
- 3) Hold the (A) Part of the Lever Tension and turn to the counterclockwise direction, and then lift up the Lever Tension.

NOTE

- (1) When reassembling, turn the Lever Tension to the clockwise direction in maximum.

DECK MECHANISM DISASSEMBLY



31. Gear Assembly P3 (Fig. A-10-1)/

Gear Assembly P2 (Fig. A-10-2)

- 1) Unhook the two Hooks(H1) and lift up the Gear Assembly P3.
- 2) Unhook the two Hooks(H2) and lift up the Gear Assembly P2.

32. Base Assembly P3 (Fig. A-10-3)/

Base Assembly P2 (Fig. A-10-4)

- 1) Move the Base Assembly P3 in the direction of the arrow of the Chassis Hole(A) and push down the Base Assembly P3.
- 2) Move the Base Assembly P2 in the direction of the arrow of the Chassis Hole(B) and push down the Base Assembly P2.

33. Arm Assembly Idler Jog or Arm Assembly Idler (Fig. A-10-5)

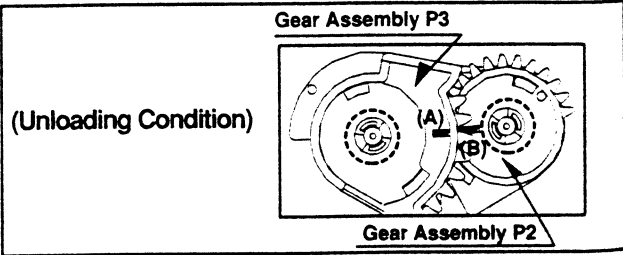
- 1) Unhook the Hook(H3) and push down the Arm Assembly Idler Jog.

NOTE

- 1) Arm Assembly Idler Jog is for 4HD Models.
- 2) Arm Assembly Idler is for 2HD Models.

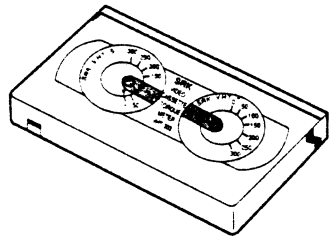
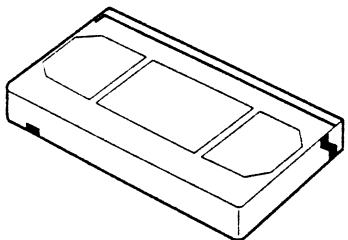
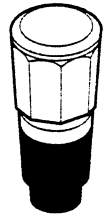
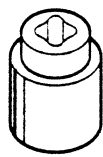
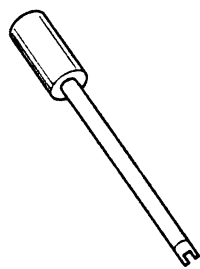
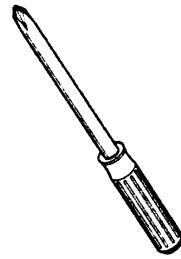
NOTE

- 1) When reassembling, confirm that the (A) Part of the Gear Assembly P3 is aligned to the (B) Part of the Gear Assembly P2 as shown below.



DECK MECHANISM ADJUSTMENT

• Tools and Fixtures for Service

1. Cassette Torque meter SRK-VHT-303(Not SVC part) Parts No: D00-D006 	2. Alignment tape Parts No NTSC: DTN-001 PAL:DTN-0002 	3. Torque gauge 600g.Cm ATG Parts No:D00-D002 
4. Torque gauge adaptor Parts No:D09-R001 	5. Post height adjusting driver Parts No:DTL-0005 	6. + Type driver (ø 5) 

DECK MECHANISM ADJUSTMENT

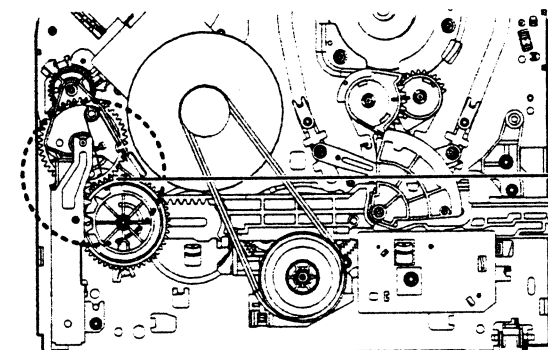
1.Mechanism Alignment Position Check

Purpose:To determine if the Mechanism is in the correct position, when a Tape is ejected.

Test Equipment/ Fixture	Test Conditions (Mechanism Condition)	Check Point
• Blank tape	• Eject Mode (with Cassette ejected)	• Mechanism and Mode Switch Position

- 1) Turn the Power S/W on and eject the Cassette by pressing the Eject Button.
- 2) Remove the Top Cover and Plate Assembly Top, visually check if the Gear Cam Hole is aligned with the Chassis Hole as below Fig. C-2.
- 3) IF not, rotate the Shaft of the Loading Motor to either Clockwise or Counterclockwise until the Alignment is as below Fig. C-2.
- 4) Remove the Screw which fixes the Deck Mechanism and Main Frame and confirm if the Gear Cam is aligned with the Gear Drive as below Fig. C-1(A).
- 5) Confirm if the Mode S/W on the Main P.C.Board is aligned as below Fig. C-1(B).
- 6) Remount the Deck Mechanism on the Main P.C.Board and check each operation.

CHECK DIAGRAM



BOTTOM VIEW

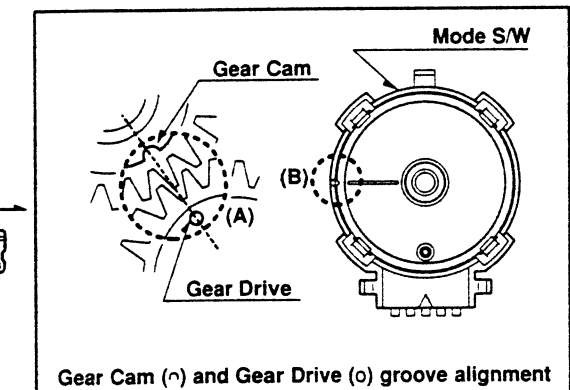
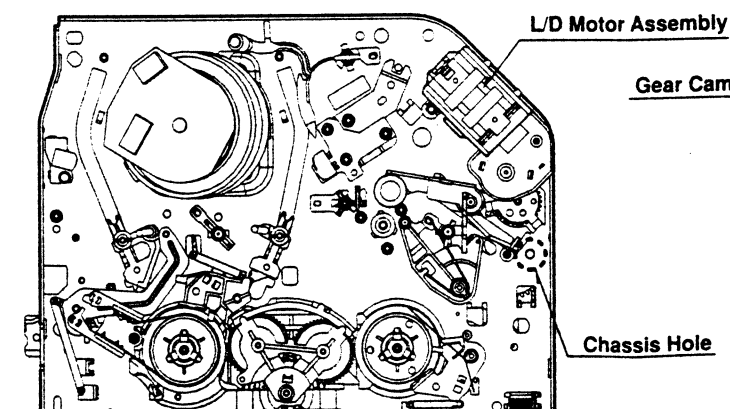


Fig. C-1



TOP VIEW

Fig. C-2

DECK MECHANISM ADJUSTMENT

2. Preparation for Adjustment (To set the Deck Mechanism to the Loading state without inserting a Cassette Tape).

- 1) Unplug the Power Cord from the AC Outlet.
- 2) Disassemble the Top Cover and Plate Assembly Top.
- 3) Plug the Power Cord into the AC Outlet.
- 4) Turn the Power SW on and push the Lever Stopper (L),(R) of the Holder Assembly CST to the back for Loading the Cassette without

Tape.

Cover the Holes of the End Sensors at the both sides of the Bracket Side(L) and Bracket Assembly Door to prevent a light leak. Then The Deck Mechanism drives to the Stop Mode. In this case, The Deck Mechanism can accept inputs of each mode, however the Rewind and Review Operation can not be performed for more than a few seconds because the Take-up Reel Table is in the Stop State and can not be detected the Reel Pulses.

3. Checking Torque

Purpose: To insure smooth Transport of the Tape during each Mode of Operation.
If the Tape Transport is abnormal, then check the Torque as indicated by the chart below.

Test Equipment/ Fixture	Test Conditions (Mechanism Condition)	Checking Method
• Torque Gauge(600g/cm ATG) • Torque Gauge Adaptor • Cassette Torque Meter SRK-VHT-303	• Play (FF) or Review (REW) Mode	• Perform each Deck Mechanism Mode without inserting a Cassette Tape(Refer to above No.2 Preparation for Adjustment). • Read the Measurement of the Take-up or Supply Reels on the Cassette Torque Meter(Fig. C-3-2). • Attach the Torque Gauge Adaptor to the Torque Gauge and then read the Value of it(Fig. C-3-1).

Item	Mode	Test Equipment	Measurement Reel	Measurement Values
Fast Forward Torque	Fast Forward	Cassette Torque Gauge	Take-Up Reel	More than 400g/cm.
Rewind Torque	Rewind	Cassette Torque Gauge	Supply Reel	More than 400g/cm
Play Take-Up Torque	Play	Cassette Torque Meter	Take-Up Reel	75~115g/cm
Review Torque	Review	Cassette Torque Meter	Supply Reel	130~200g/m

NOTE:

The Values are measured by using a Torque Gauge and Torque Gauge Adaptor with the Torque Gauge affixed.

• Cassette Torque Meter (SRK-VHT-303)

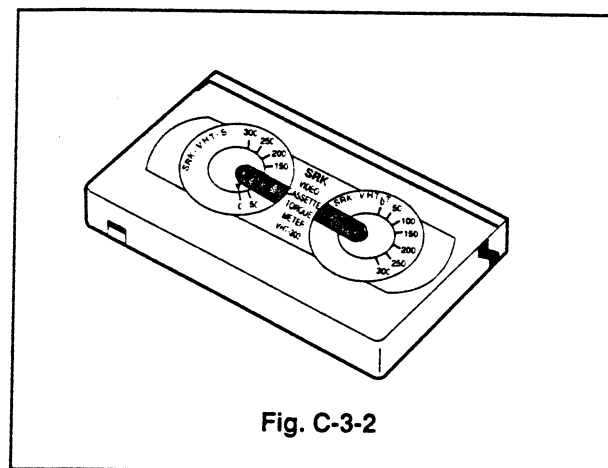


Fig. C-3-2

NOTE:

The Torque reading to measure occurs when the Tape abruptly changes direction from Fast Forward or Rewind Mode, when quick braking is applied to both Reels.

• Torque Gauge (600g.cm ATG)

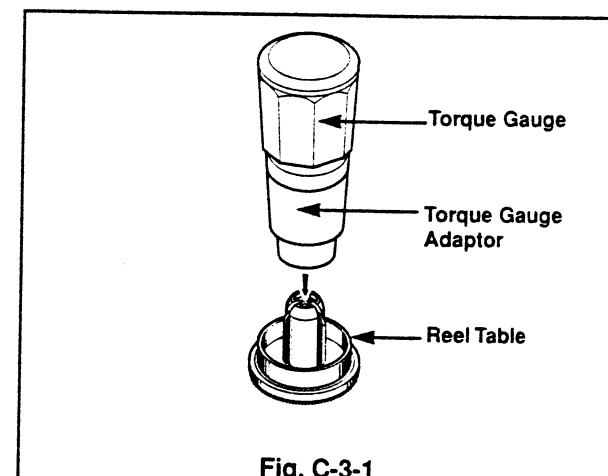


Fig. C-3-1

DECK MECHANISM ADJUSTMENT

4. Guide Roller Height Adjustment

Purpose: To regulate the Height of the Tape so that the Bottom of the Tape runs along the Tape Guide Line on the Lower Drum.

4-1. Preliminary Adjustment

Test Equipment/ Fixture	Test Conditions (Mechanism Condition)	Adjustment Point
• Post Height Adjusting Driver	• Play or Review Mode	• Guide Roller Height Adjustment screws on the Supply and Take-Up Guide Rollers.

Adjustment Procedure 1) Confirm if the Tape runs along the Tape Guide Line of the Lower Drum. 2) If the Tape runs the Bottom of the Guide Line, turn the Guide Roller Height Adjustment Screw to Clockwise direction. 3) If it runs the Top, turn to Counterclockwise direction. 4) Adjust the Height of the Guide Roller to be guided to the Guide Line of the Lower Drum from the Starting and Ending Point of the Drum.	ADJUSTMENT DIAGRAM Fig. C-4-1
--	---

4-2. Precise Adjustment

Test Equipment/Fixture	Test Equipment Connection Points	Test Conditions VCR(VCP) State	Adjustment Point
• Oscilloscope • Alignment Tape • Post Height Adjusting Driver	• CH-1:PB RF Envelope • CH-2:NTSC: SW 30Hz • PAL: SW 25Hz • Head Switching Output Point • RF:Envelope Output Point	• Play an Alignment Tape	• Guide Roller Height Adjustment Screws

Adjustment Procedure 1) Play an Alignment Tape after connecting the Probe of the Oscilloscope to the RF Envelope Output Test Point and Head Switching Output Test Point. 2) Tracking Control(in PB Mode) : Center Position(When this Adjustment is performed after the Drum Assembly has been replaced, set the Tracking Control so that the RF Output is Maximum). 3) Height Adjustment Screw : Flatten the RF Waveform. (Fig. C-4-2) 4) Turn(Move) the Tracking Control(in PB Mode) Clockwise and Counterclockwise.(Fig. C-4-3) 5) Check that any Drop of RF Output is uniform at the Start and End of the Waveform.	Waveform Diagrams Fig. C-4-2 Fig. C-4-3
---	--

NOTE If the adjustment is excessive or insufficient the tape will jam or fold.	Connection Diagram
--	---------------------------

DECK MECHANISM ADJUSTMENT

5. Audio/Control (A/C) Head Adjustment

Purpose: To insure that the Tape passes accurately over the Audio and Control Tracks in exact Alignment in both the Record and Playback Modes.

5-1. Preliminary Adjustment (Height and Tilt Adjustment)
Perform the Preliminary Adjustment, when there is no Audio Output Signal with the Alignment Tape.

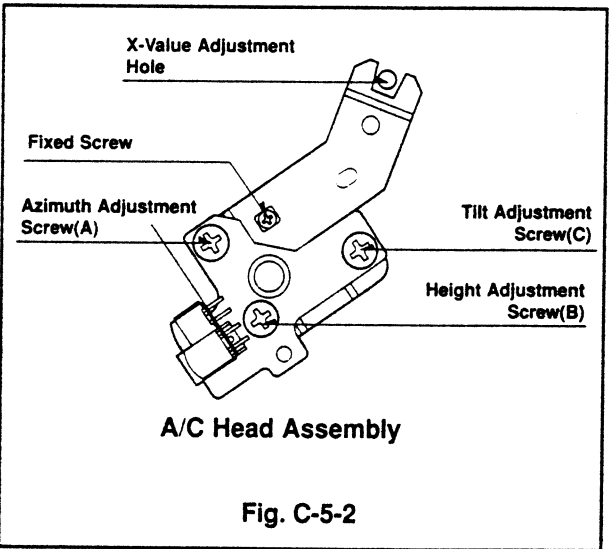
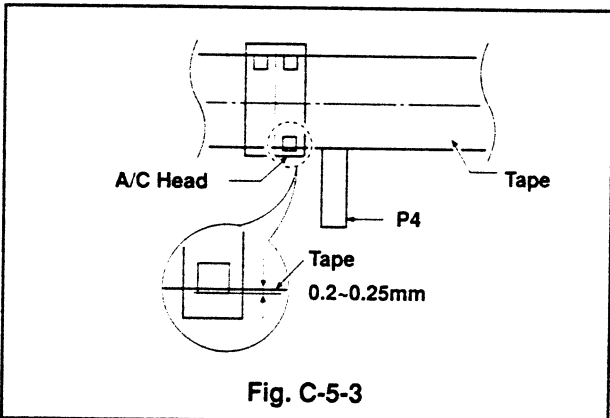
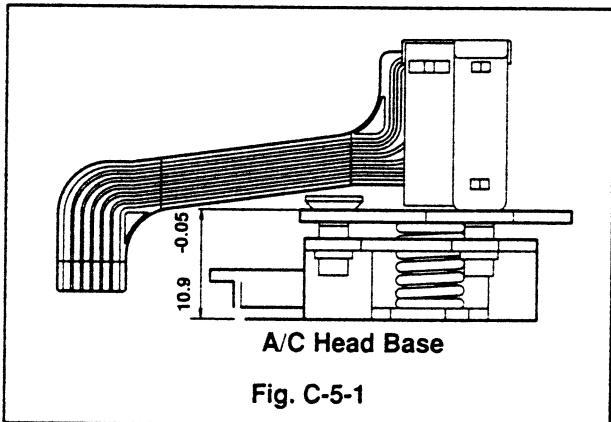
Test Equipment/ Fixture	Test Conditions (Mechanism Condition)	Adjustment Point
- Blank Tape - Screw Driver(+) Type 5mm	Play the blank tape	- Tilt Adjustment Screw(C) - Height Adjustment Screw(B) - Azimuth Adjustment Screw(A)

Adjustment Procedure/Diagrams

- Initially adjust the Base Assembly A/C Head as shown Fig. C-5-1 by using the Height Adjustment Screw(B).
- Play a Blank Tape and observe if the Tape passes accurately over the A/C Head without Tape Curling or Folding.
- If Folding or Curling is occurred then adjust the Tilt Adjustment Screw(C) while the Tape is running to resemble Fig. C-5-3.
- Reconfirm the Tape Path after Playback about 4~5 seconds.

NOTE

Ideal A/C head height occurs, when the tape runs between 0.2~0.25mm above the bottom edge of the A/C head core.



DECK MECHANISM ADJUSTMENT

5-2. Confirm that the Tape passes smoothly between the Take-up Guide and Pinch Roller(using a Mirror or the naked eye).

- After completing Step 5-1.(Preliminary Adjustment), check that the Tape passes around the Take-up Guide and Pinch Roller without Folding or Curling at the Top or Bottom.
 - If Folding or Curling is observed at the Bottom of the Take-up Guide then slowly turn the Tilt Adjustment Screw(C) in the Clockwise direction.
 - If Folding or Curling is observed at the Top of it then

slowly turn the Tilt Adjustment Screw(C) in the Counterclockwise direction.

NOTE:

Check the RF Envelope after adjusting the A/C Head, if the RF Waveform differs from Fig. C-5-4, performs Precise Adjustment to flat the RF Waveform.

5-3. Precise Adjustment (Azimuth adjustment)

Test Equipment/ Fixture	Connection Point	Test Conditions (Mechanism Condition)	Adjustment Point
- Oscilloscope - Alignment Tape(SP) - Screw Driver(+) Type 5mm	Audio output jack	Play an Alignment Tape 1KHz, 7KHz Sections	- Azimuth Adjustment Screw(A) - Height Adjustment Screw(B)

Adjustment Procedure

- Connect the Probe of the Oscilloscope to Audio Output Jack.
- Alternately adjust the Azimuth Adjustment Screw(A) and the Tilt Adjustment Screw(C) for Maximum Output of the 1KHz and 7KHz segments, while maintaining the flattest Envelope differential between the two Frequencies.

1KHZ
A:Maximum

7KHZ
B:Maximum

Fig. C-5-4

6. X-Value Adjustment

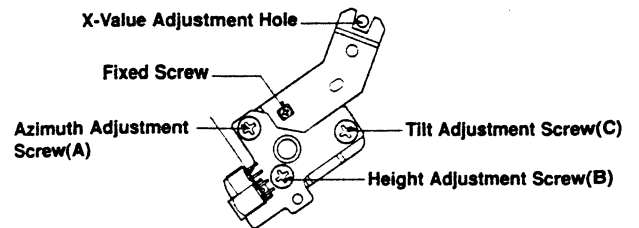
Purpose: To obtain compatibility with other VCR(VCP) Models.

Test Equipment/ Fixture	Connection Point	Test Conditions (Mechanism Condition)	Adjustment Point
- Oscilloscope - Alignment tape(SP only) - Screw Driver(+) Type 5mm	- CH-1: PB RF Envelope - CH-2: NTSC: SW 30Hz PAL: SW 25Hz - Head Switching Output Test Point - RF Envelope Output Test Point	Play an Alignment Tape	Left Right Groove at the Base A/C

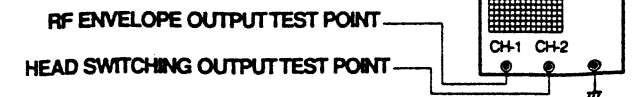
Adjustment Procedure

- Release the Automatic Tracking to run long enough for Tracking to complete its Cycle.
- Loosen the Fixed Mounting Screw and move the Base Assembly A/C Head in the direction as shown in the Diagram to find the center of the peak that allows for the maximum Waveform Envelope. This method should allow the 31um Head to be centrally located over the 58um Tape Track.
- Tighten the Base Assembly A/C Head mounting Screw.

Adjustment Diagram



Connection Diagram



DECK MECHANISM ADJUSTMENT

7. Adjustment after Replacing Drum Assembly (Video Heads)

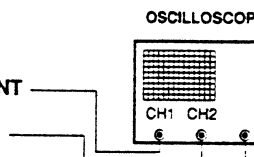
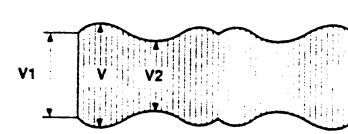
Purpose: To correct for shift in the Roller Guide and X value after replacing the Drum.			
Test Equipment/ Fixture	Connection Point	Test Conditions (Mechanism Condition)	Adjustment Points
- Oscilloscope - Alignment tapes - Blank Tape - Post Height Adjusting Driver - Screw Driver(+) Type 5mm	- CH-1: PB RF Envelope - CH-2: NTSC: SW 30Hz PAL: SW 25Hz - Head Switching Output Test Point - RF Envelope Output Test Point	- Play the blank tape - Play an alignment tape	- Guide Roller Precise Adjustment - Switching Point - Tracking Preset - X-Value
Checking/Adjustment Procedure Play a blank tape and check for tape curling or creasing around the roller guide. If there is a problem then follow the procedure 4. "Guide Roller Height" and 5. "Audio Control(A/C) Head Adjustment".		Connection Diagram  Waveform $V1/V \text{ MAX} \leq 0.7$ $V2/V \text{ MAX} \leq 0.8$ RF ENVELOPE OUTPUT 	

Fig. C-7

8. Check the Tape Travel after Reassembling Deck Assembly.

8-1. Check Audio and RF Locking Time during playback and after CUE or REV (FF/REW)

Test Equipment/ Fixture	Specification	Connection Points	Test Conditions (Mechanism Condition)
- Oscilloscope - Alignment tapes(with 6H 3kHz Color Bar Signal) - Stop Watch	- RF Locking Time: Less than 5 sec. - Audio Locking Time: Less than 10sec	- CH-1: PB RF Envelope - CH-2: Audio Output - RF Envelope Output Point - Audio Output Jack	Play an alignment tape (with 6H 3kHz Color Bar Signal)
Checking Procedure Play an alignment tape then change the operating mode to CUE or REV and confirm if the unit meets the above listed specifications.			
NOTES: 1) CUE is fast forward mode (FF) 2) REV is the rewind mode (REW) 3) Referenced to the Play mode			

8-2. Check for tape curling or jamming

Test Equipment/ Fixture	Specification	Test Conditions (Mechanism Condition)
- T-160 Tape - T-120 Tape	Be sure there is no tape jamming or curling at the beginning, middle or end of the tape.	Run the CUE, REV play mode at the beginning and the end of the tape.
Checking Procedure 1) Confirm that the tape runs smoothly around the roller guides, drum and A/C head assemblies while abruptly changing operating modes from Play to CUE or REV. This is to be checked at the beginning, middle and end sections of the cassette. 2) Confirm that the tape passes over the A/C head assembly as indicated by proper audio reproduction and proper tape counter performance.		

MAINTENANCE/INSPECTION PROCEDURE

1 Check before starting repairs

The following faults can be remedied by cleaning and oiling. Check the needed lubrication and the conditions of cleanliness in the unit.
Check with the customer to find out how often the unit is used, and then determine that the unit is ready for inspection and maintenance. Check the following parts.

Phenomenon	Inspection	Replacement
Color beats	Dirt on full-erase head	o
Poor S/N, no color	Dirt on video head	o
Vertical or Horizontal jitter	Dirt on video head Dirt on tape transport system	o
Low volume, Sound distorted	Dirt on Audio/control head	o
Tape does not run. Tape is slack	Dirt on pinch roller	o
In Review and Unloading (off mode), the Tape is rolled up loosely.	Clutch Ass'y S27 Torque reduced Cleaning Drum and transport system	o Fig. C-9-3

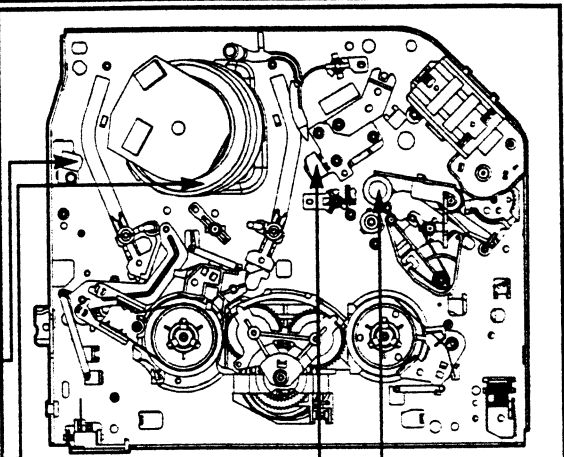


Fig. C-9-1 Top VIEW

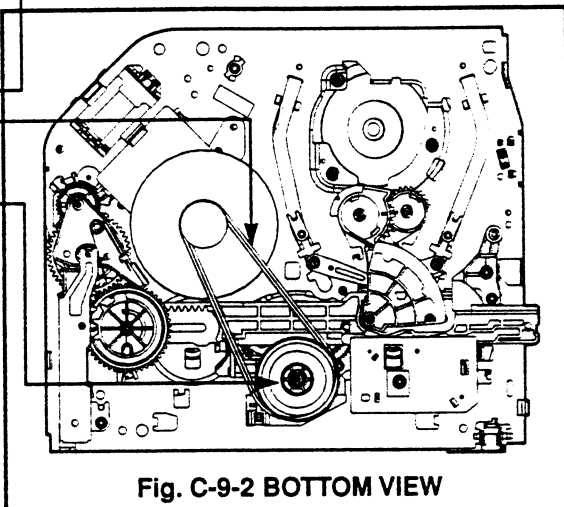


Fig. C-9-2 BOTTOM VIEW

NOTE

If locations marked with o do not operate normally after cleaning, check for wear and replace.
See the EXPLODED VIEWS at the end of this manual as well as the above illustrations See the Greasing (Page 4-22) for the sections to be lubricated and greased.

* No. (1)~(13) Indicates the Tape Path to be traveled from Supply Reel to Take-up Reel.

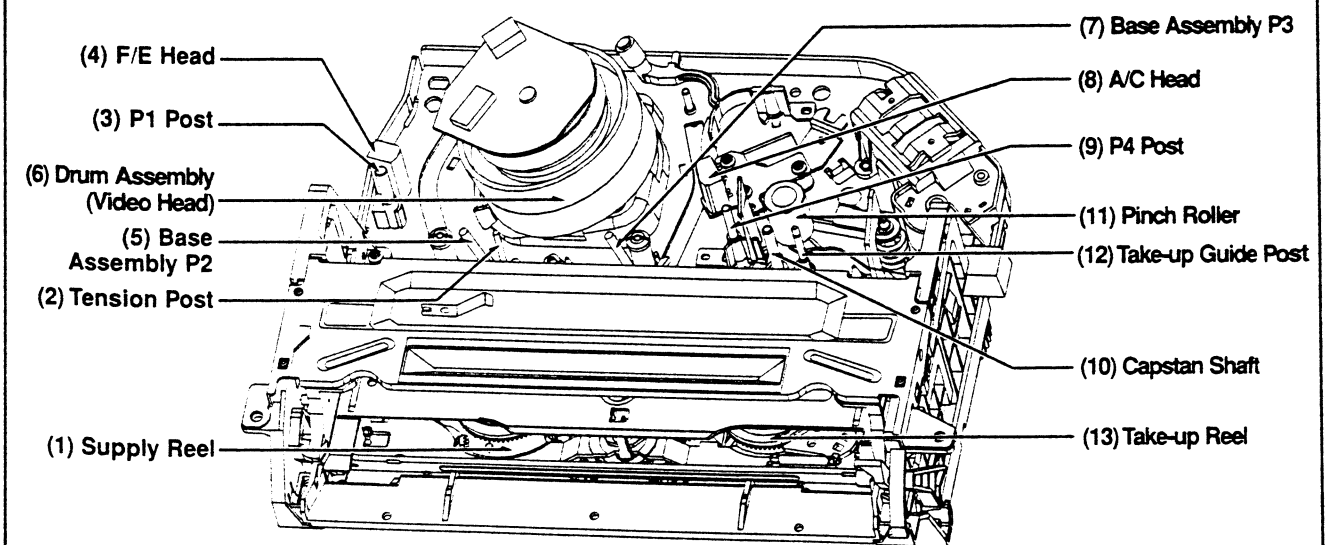


Fig. C-9-3 Tape Transport System

MAINTENANCE/INSPECTION PROCEDURE

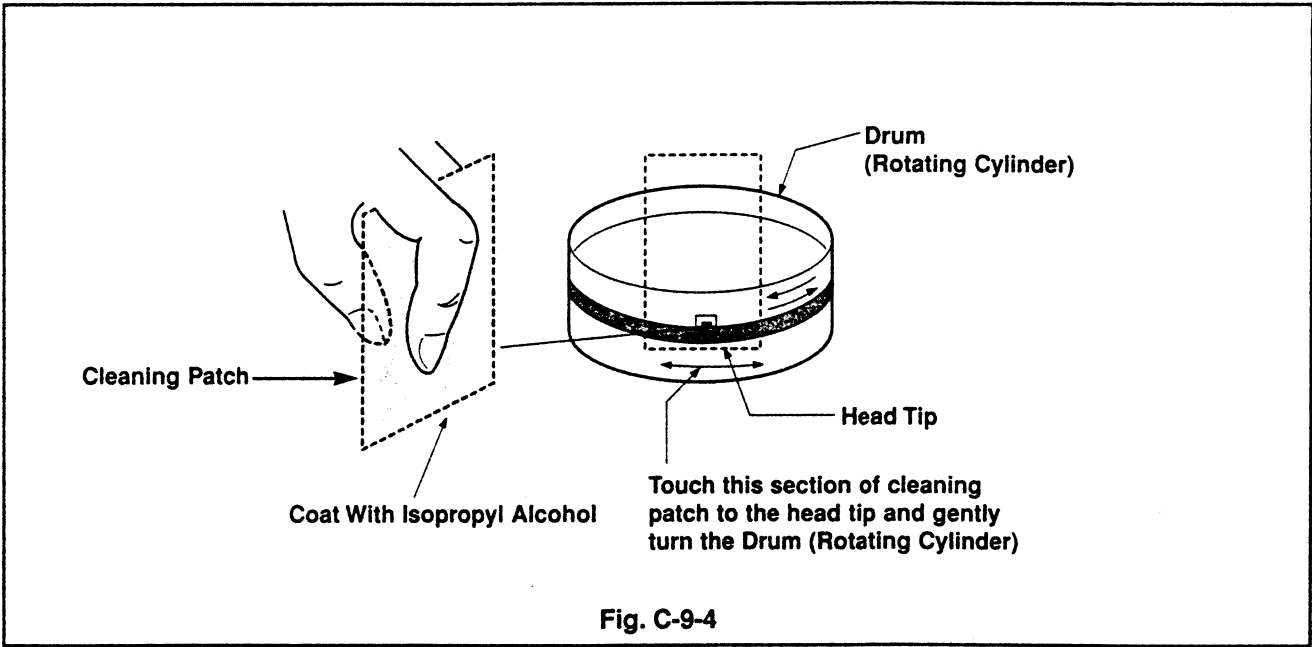
2. Required Maintenance

The recording density of a VCR(VCP) is much higher than that of an audio tape recorder. VCR(VCP) components must be very precise, at tolerances of 1/1000mm, to ensure compatibility with other VCRs. If any of these components are worn or dirty, the symptoms will be the same as if the part is defective. To ensure a good picture, periodic inspection and maintenance, including replacement of worn out parts and lubrication, is necessary.

3. Scheduled Maintenance

Schedules for maintenance and inspection are not fixed because they vary greatly according to the way in which the customer uses the VCR(VCP), and the environment in which the VCR(VCP) is used. But, in general home use, a good picture will be maintained if inspection and maintenance is made every 1,000 hours. The table below shows the relation between time used and inspection period.

Table 1			
When inspection is necessary	About 1 year	About 18 months	About 3 years
Average hours used per day			
One hour			
Two hours			
Three hours			



4. Supplies Required for Inspection and Maintenance

- (1) Grease : Kanto G-311G (Blue) or equivalent
- (2) Isopropyl Alcohol or equivalent
- (3) Cleaning Patches
- (4) Grease : Kanto G-381(Yellow) : Used only for Reel S and Reel T

5) Maintenance Procedure

5-1) Cleaning

- (1) Cleaning video head
First use a cleaning tape. If the dirt on the head is too stubborn to remove by tape, use the cleaning patch. Coat the cleaning patch with Isopropyl Alcohol. Touch the cleaning patch to the head tip and gently turn the head(rotating cylinder) right and left. (Do not move the cleaning patch vertically. Make sure that only the buckskin on the cleaning patch comes into contact with the head. Otherwise, the head may be damaged.) Thoroughly dry the head. Then run the test tape. If Isopropyl Alcohol remains on the video head, the tape may be damaged when it comes into contact with the head surface.
- (2) Clean the tape transport system and drive system, etc, by wiping with a cleaning patch wetted with Isopropyl Alcohol.

NOTES:

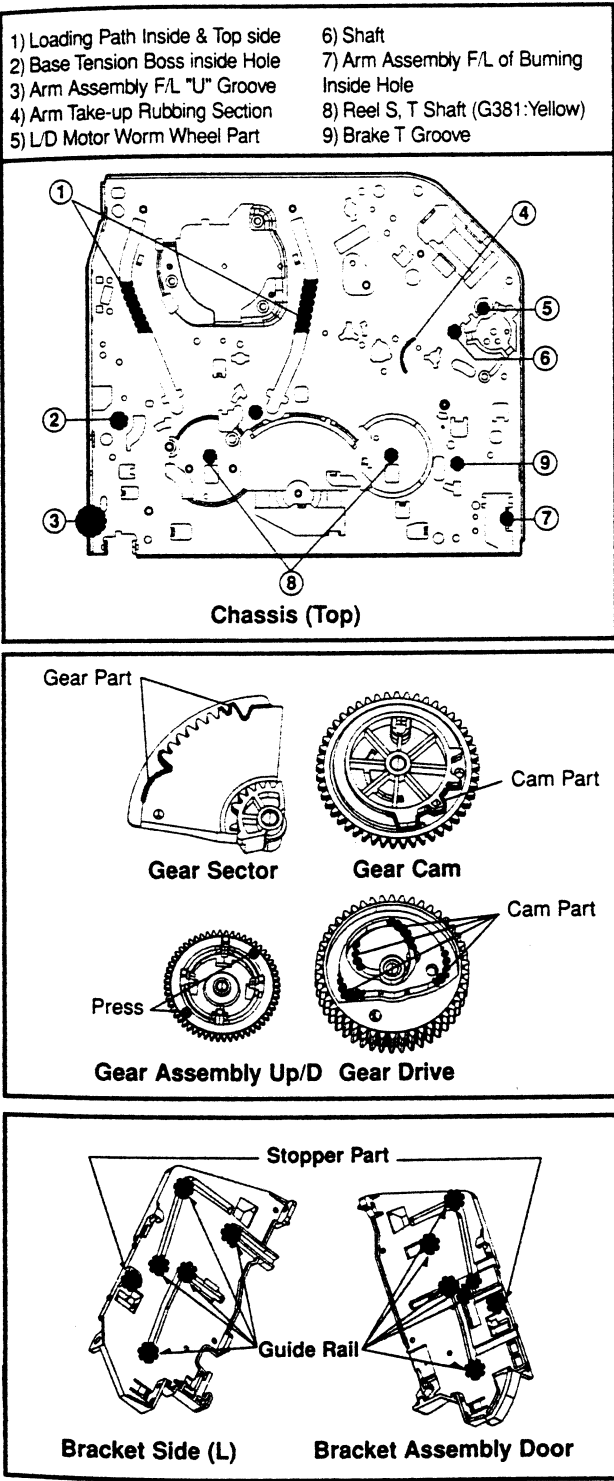
- ① It is the tape transport system which comes into contact with the running tape. The drive system consists of those parts which moves the tape.
- ② Make sure that during cleaning you do not touch the tape transport system with the tip of a screw driver and no that force is that would cause deforming or damage applied to the system.

MAINTENANCE/INSPECTION PROCEDURE

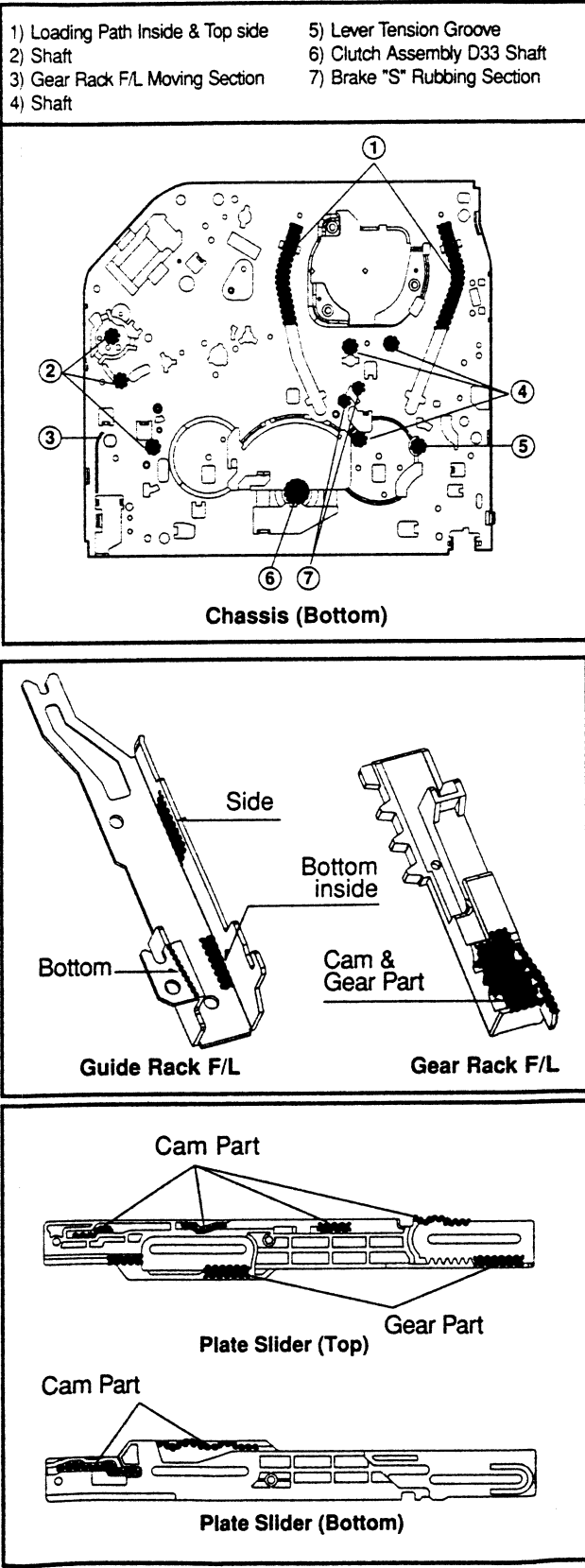
5-2) Greasing

- (1) Greasing guidelines
Apply grease, with a cleaning patch. Do not use excess grease. It may come into contact with the tape transport or drive system. Wipe any excess and clean with cleaning patch wetted in Isopropyl Alcohol.

NOTE:Greasing Points



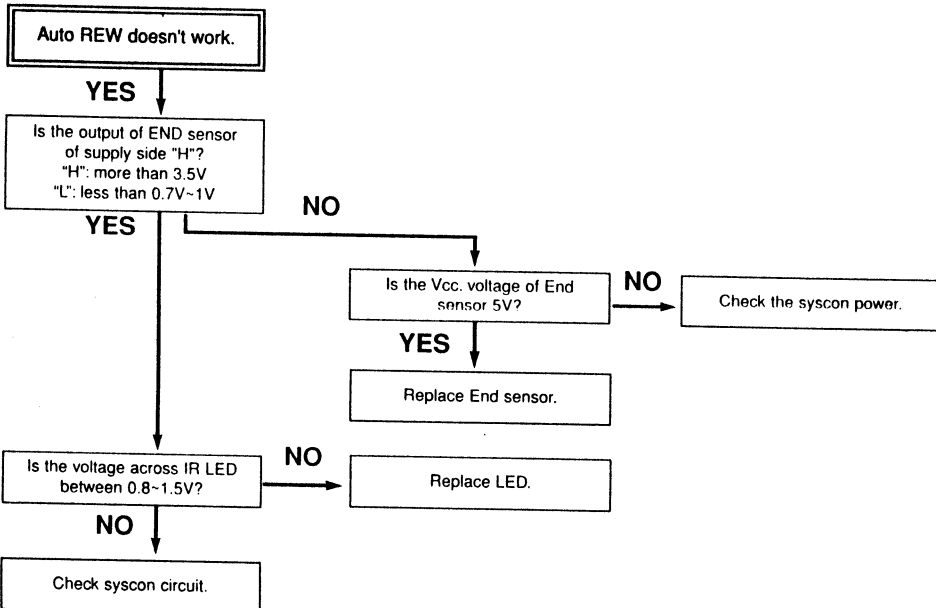
- (2) Periodic greasing
Grease specified locations every 5,000 hours.



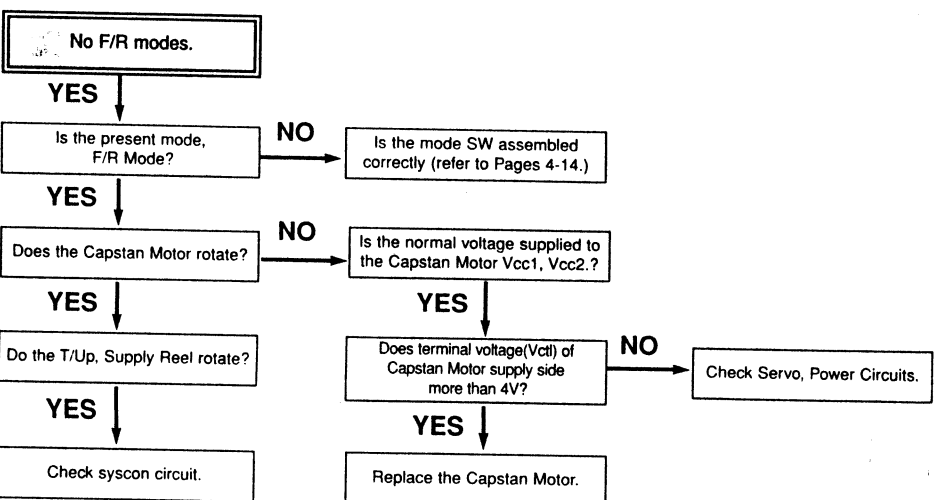
MECHANISM TROUBLESHOOTING GUIDE

1. Deck Mechanism

A.



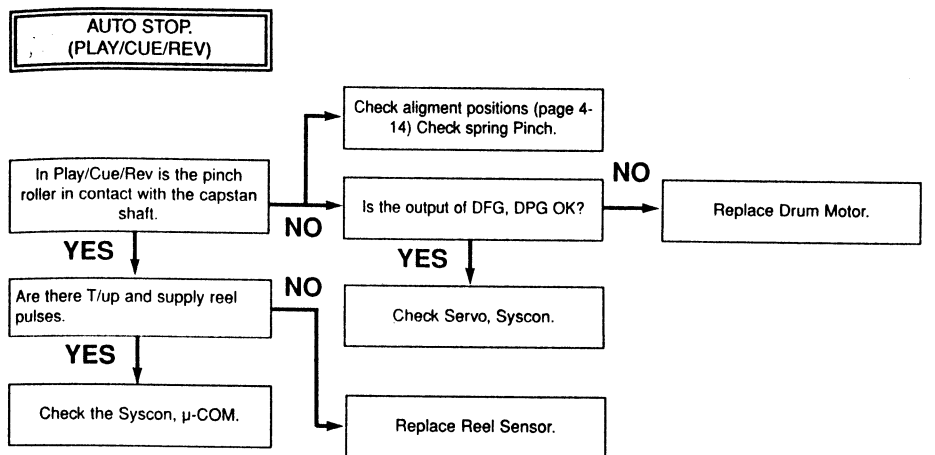
B.



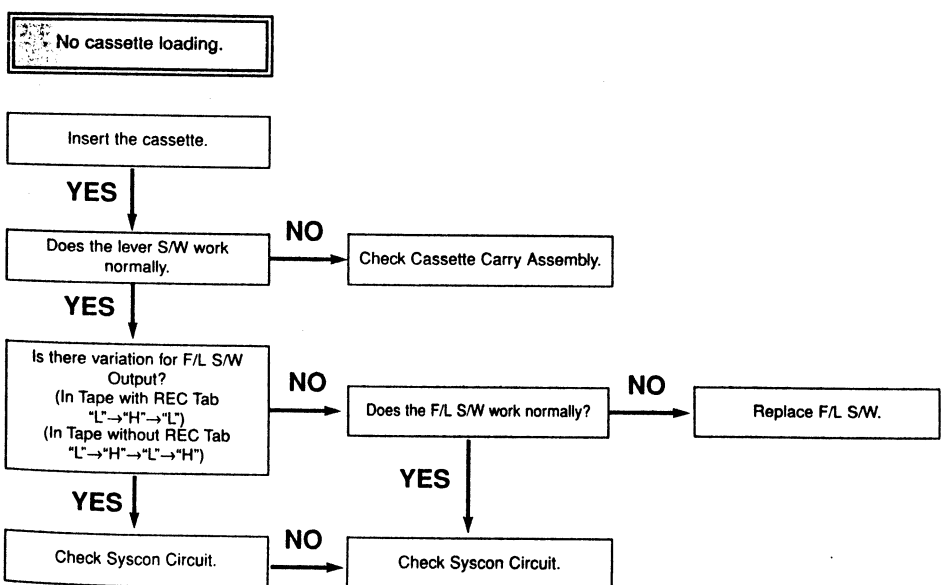
4-23

MECHANISM TROUBLESHOOTING GUIDE

C.



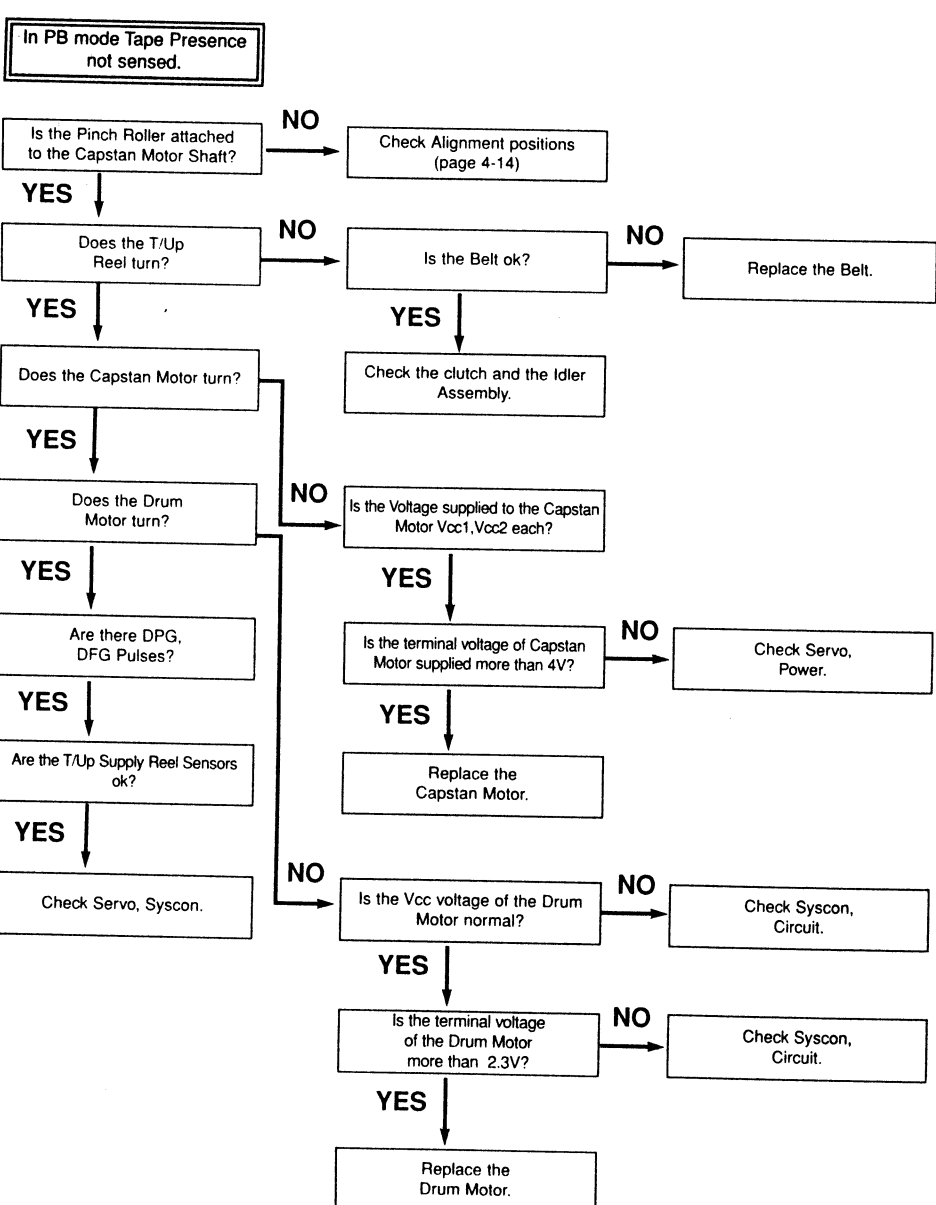
D.



4-24

MECHANISM TROUBLESHOOTING GUIDE

E.

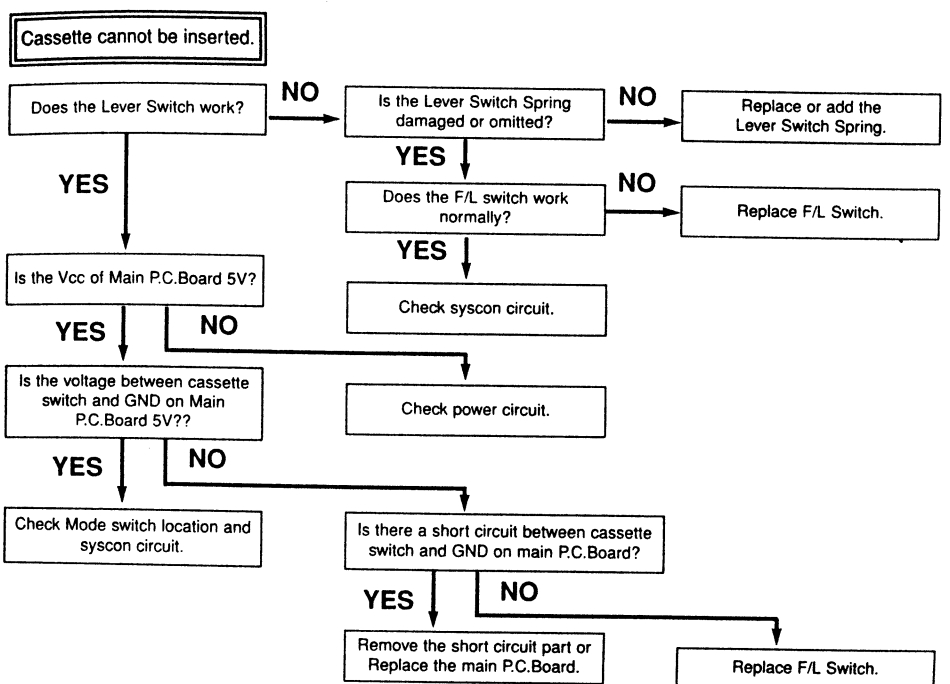


4-25

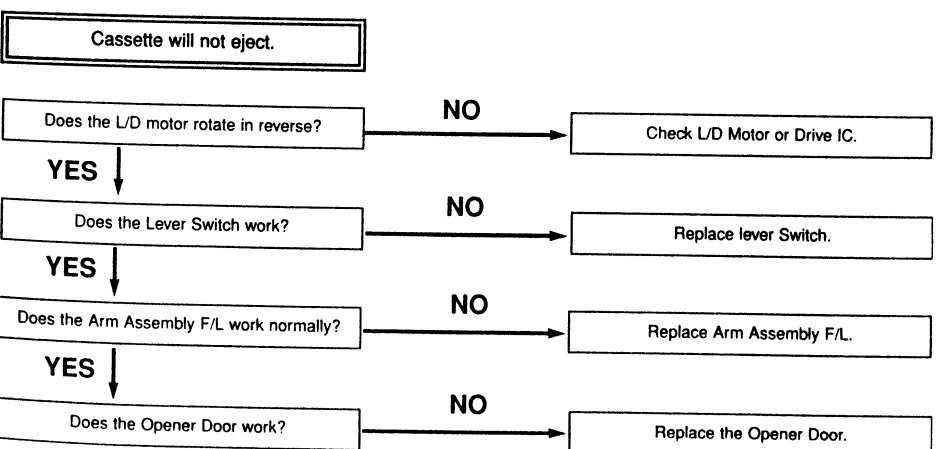
MECHANISM TROUBLESHOOTING GUIDE

2. Front Loading Mechanism

A.



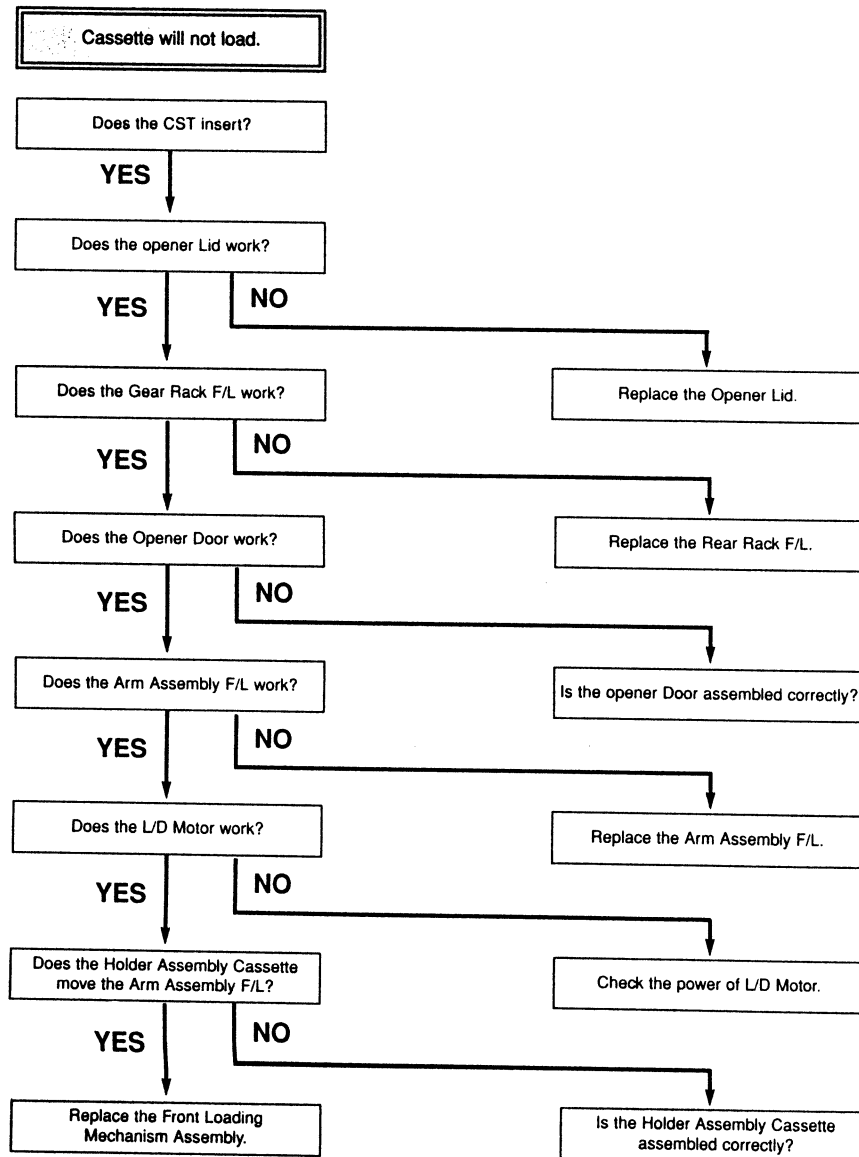
B.



4-26

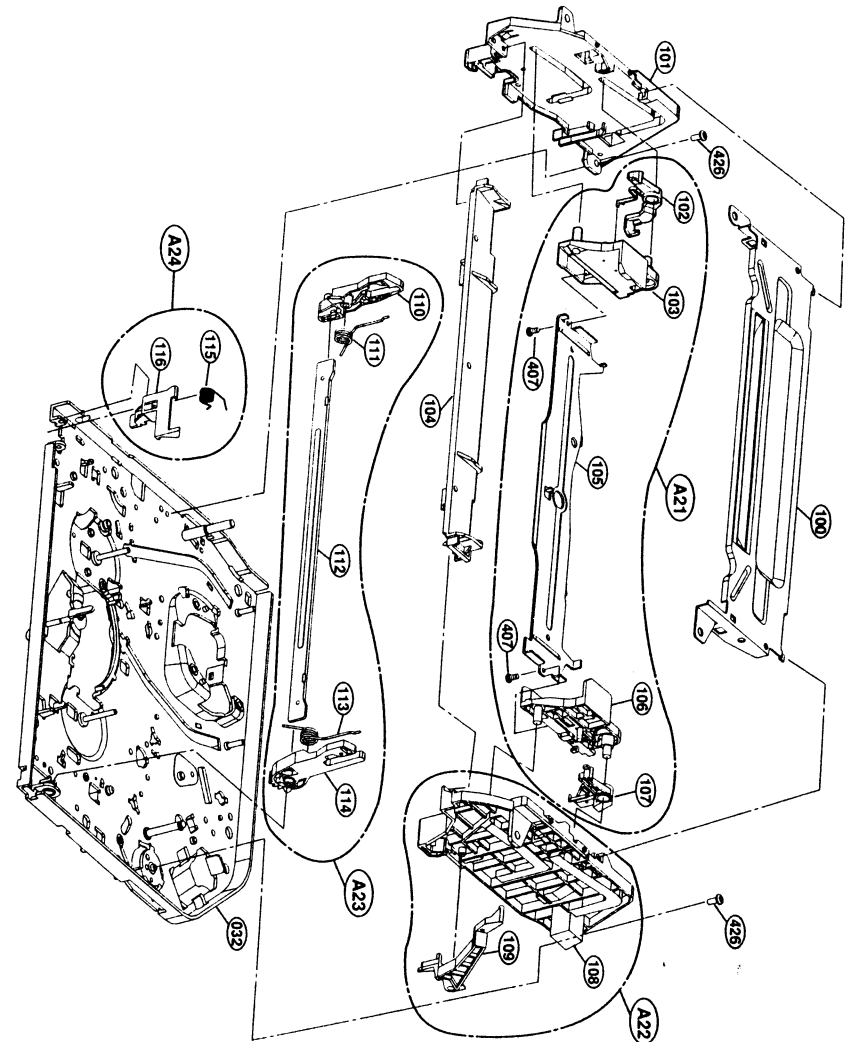
MECHANISM TROUBLESHOOTING GUIDE

C.



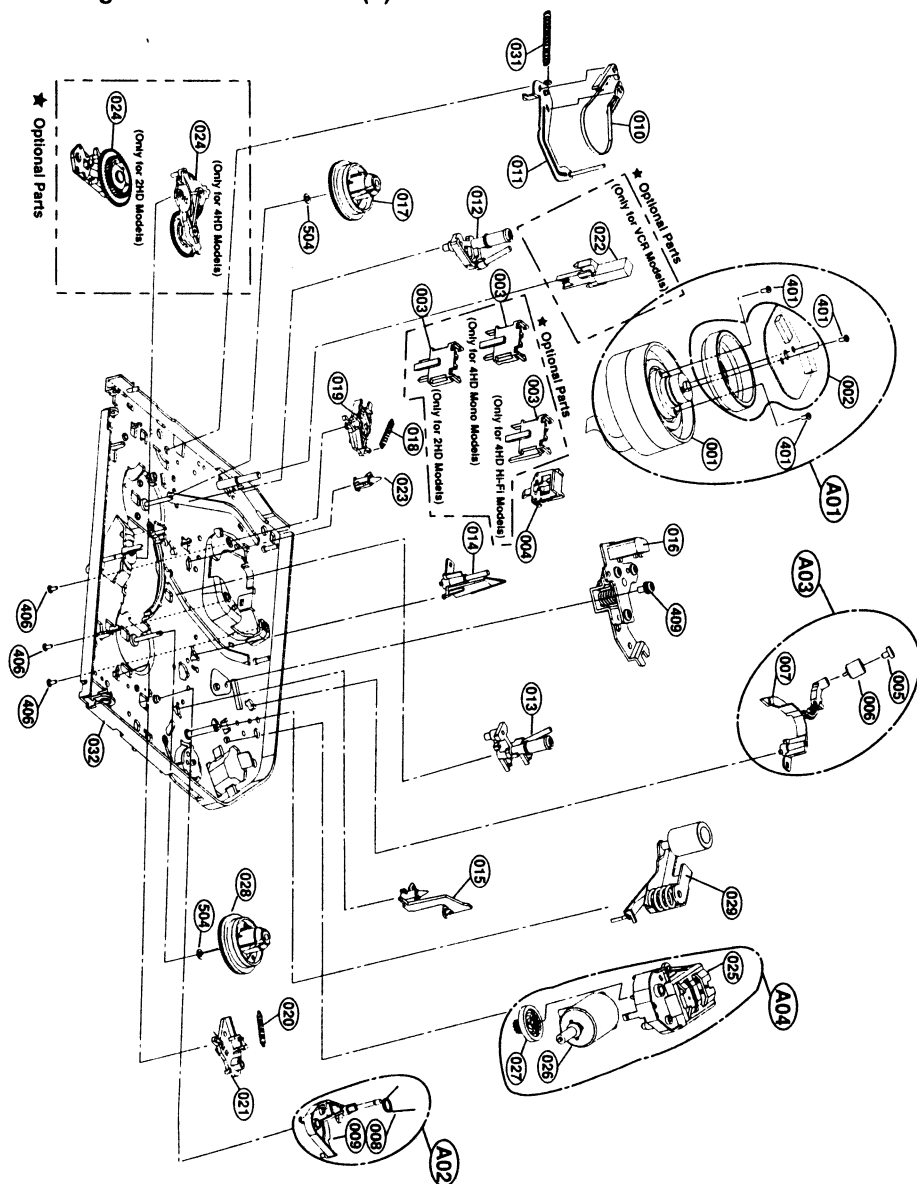
EXPLODED VIEWS

1. Front Loading Mechanism Section



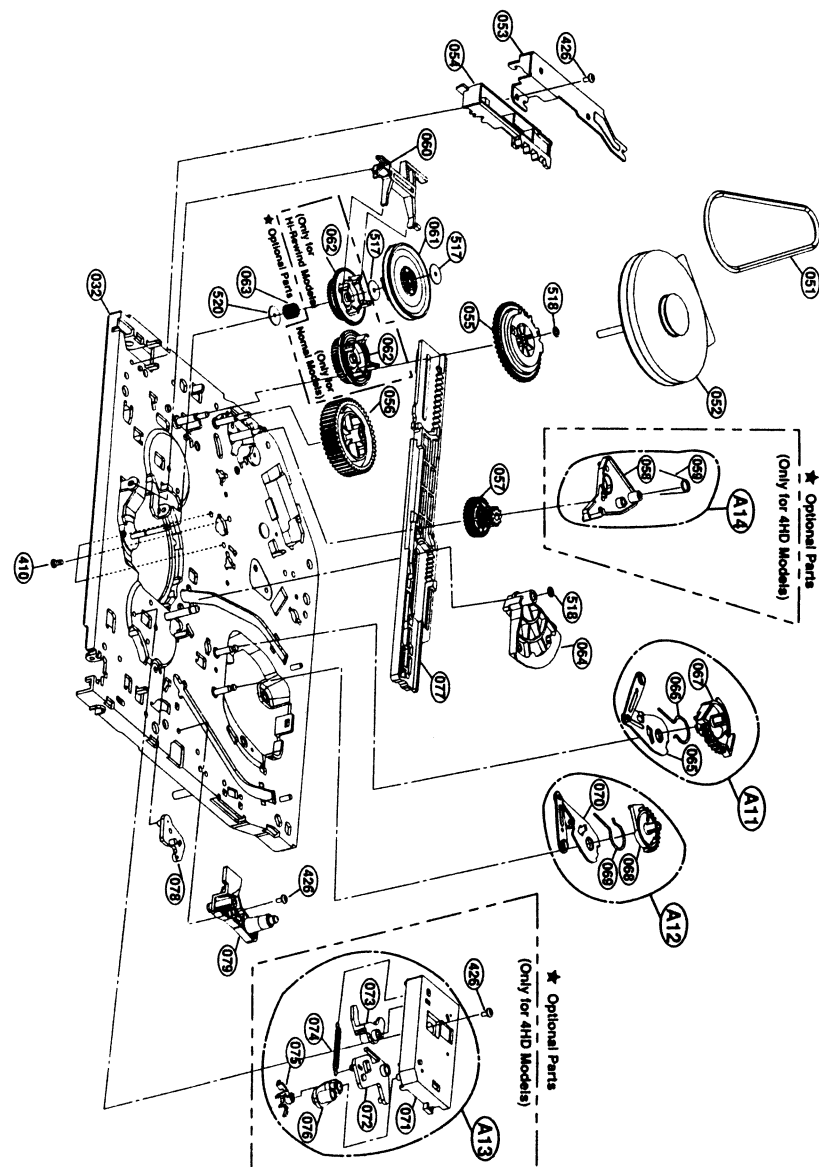
EXPLODED VIEWS

2. Moving Mechanism Section(1)



EXPLODED VIEWS

3. Moving Mechanism Section(2)



MEMO

SECTION 5 REPLACEMENT PARTS LIST

• Mechanical Section

RUN DATE : 99.05.17
NSP: Not Service Part

S	AL	LOCA.NO	PART NO(GS)	DESCRIPTION	SPECIFICATION	REMARKS
ASSEMBLY PARTS SECTION						
	OR	A00	6721R-0105A	DECK ASSY	D33 (2HD, NP, VCR)	
	OR	A01	6723R-0101B	DRUM ASSY	D33-2CH SP/EP (5M2)	
	OR	A01	6723R-B101B	DRUM(CIRC) ASSY	D33-2CH SP/EP (5M2)	
	OR	A01	6723R-D101B	DRUM(CIRC) ASSY	D33-2CH SP/EP (5M2)	
		A02	4261R-0012A	ARM ASSY!	T/UP	
		A03	4261R-0003A	ARM ASSY!	CLEANER	
		A04	4811R-0011A	BRACKET ASSY	L/D MOTOR	
		A11	4470R-0028A	GEAR	ASSY P3	
		A12	4470R-0026A	GEAR	ASSY P2	
		A21	4931R-0015A	HOLDER ASSY	CST	
		A22	4811R-0014A	BRACKET ASSY	DOOR	
		A23	4261R-0010A	ARM ASSY!	F/L	
		A24	4510R-0019A	LEVER	ASSY SWITCH	
PARTS SECTION						
	OR	001	6723R-0104B	DRUM ASSY	SUB D33-2CH SP/EP (5M2)	
	OR	002	4680RB0004A	MOTOR(MECH)	DRUM F20EL-81 SANKYO D33	
	OR	002	4680RB0005A	MOTOR(MECH)	DRUM GVD-033A LGEC D33	
	OR	003	4930R-0106A	HOLDER	FPC(2CH)	
	OR	004	5006R-0014A	CAP	FPC	
	OR	005	276-100A	CAP	A CLEANER	NSP
	OR	006	434-242A	ROLLER	CLEANER	NSP
	OR	007	4260R-0009A	ARM	CLEANER	NSP
	OR	008	4970R-0043A	SPRING	T/UP	
	OR	009	4260R-0011A	ARM	T/UP	
	OR	010	4770R-0004A	BAND (MECH)	ASSY TENSION	
	OR	011	4261R-0004A	ARM ASSY!	TENSION	
	OR	012	3041R-0003A	BASE ASSY	P2	
	OR	012	3041R-0003B	BASE ASSY	P2 (D/C)	
	OR	013	3041R-0004A	BASE ASSY	P3	
	OR	013	3041R-0004B	BASE ASSY	P3(D/C)	
	OR	014	3041R-0007A	BASE ASSY	P4	
	OR	015	5870R-0001A	OPENER	LID	
	OR	016	3041R-0005A	BASE ASSY	A/C HEAD(LGEC)	
	OR	017	4408R-0001A	REEL	S	
	OR	018	4970R-0054A	SPRING	SB	
	OR	019	4421R-0003A	BRAKE ASSY	S	
	OR	020	4970R-0053A	SPRING	TB	
	OR	021	4421R-0004A	BRAKE ASSY	T	
	OR	022	523-833B	HEAD	FE D33 . LG C&D/ST	
	OR	023	4980R-0010A	SUPPORTER	CST	
	OR	024	4261R-0008A	ARM ASSY!	IDLER	
	OR	025	4810R-0053A	BRACKET	L/D MOTOR	NSP
	OR	026	4681R-0007A	MOTOR ASSY	L/D	NSP
	OR	027	4470R-0025A	GEAR	WHEEL	NSP
	OR	028	4408R-0002A	REEL	T	
	OR	029	4261R-0011A	ARM ASSY!	PINCH (MOLD BEARING)	
	OR	031	4970R-0052A	SPRING	TENSION	

S	AL	LOCA.NO	PART NO(GS)	DESCRIPTION	SPECIFICATION	REMARKS	
OR		032	3141R-0002A	CHASSIS ASSY	D33	NSP	
		051	4400R-0005A	BELT	CAPSTAN		
		052	4680RA0002A	MOTOR(MECH)	CAPSTAN F2QSB SANKYO D33		
		052	4680RA0003A	MOTOR(MECH)	CAPSTAN GVC-033A LGEC D33		
		053	4974R-0018A	GUIDE	RACK F/L		
		054	4470R-0037A	GEAR	RACK F/L		
		055	4470R-0033A	GEAR	DRIVE		
		056	4470R-0032A	GEAR	CAM		
		057	4470R-0036B	GEAR	CONNECT		
		060	4510R-0025A	LEVER	F/R		
		061	4265R-0002A	CLUTCH ASSY	D33		
		062	4470R-0044A	GEAR	ASSY UP/D		
		063	4970R-0051A	SPRING	UP/D		
		064	4470R-0034A	GEAR	SECTOR		
		065	4510R-0016A	LEVER	P3		NSP
		066	4970R-0046A	SPRING	L/D		NSP
		067	4470R-0029A	GEAR	P3		NSP
		068	4470R-0027A	GEAR	P2		NSP
		069	4970R-0046A	SPRING	L/D		NSP
		070	4510R-0015A	LEVER	P2		NSP
		077	3300R-0157A	PLATE	SLIDER		
		078	4510R-0022A	LEVER	TENSION		
		079	3040R-0018A	BASE	TENSION		
		100	3301R-0029A	PLATE ASSY	TOP		
		101	4810R-0056A	BRACKET	SIDE(L)		
		102	4510R-0023A	LEVER	STOPPER(L)		NSP
		103	4930R-0099A	HOLDER	SIDE(L)		NSP
		104	4974R-0019A	GUIDE	CST		
		105	4930R-0098A	HOLDER	CST		NSP
		106	4930R-0100A	HOLDER	SIDE(R)		NSP
		107	4510R-0024A	LEVER	STOPPER(R)		NSP
		108	4810R-0055A	BRACKET	SIDE(R)		NSP
		109	5870R-0002A	OPENER	DOOR		NSP
	110	4260R-0018A	ARM	F/L(L)	NSP		
	111	4970R-0055A	SPRING	F/L(L)	NSP		
	112	3070R-0001A	BODY	F/L	NSP		
	113	4970R-0056A	SPRING	F/L(R)	NSP		
	114	4260R-0019A	ARM	F/L(R)	NSP		
	115	4970R-0050A	SPRING	SWITCH			
	116	4510R-0020A	LEVER	SWITCH			
SCREW							
		401	1MPK0261418	PAN HEAD MACHINE SCREW +.	+ D2.6 L4.0 MSWR3 / FZY		
		406	1MEC0302018	PAN HEAD MACHINE SCREW S/W +	D 3.0 L 6.0 MSWR3/FZY		
		407	1APF0201718	SCREW TAP TITE(B),PAN HEAD	+ D2.0 L5.0 MSWR3/FZY		
		409	1MGC0302418	PAN HEAD MACN SCREW S/P WASH +	D 3.0 L 8.0 MSWR3/FZY		
		410	1APF0262218	SCREW TAP TITE(B),PAN HEAD	+ D2.6 L6.8 MSWR3/FZY		
		426	1MPC0302018	PAN HEAD MACHINE SCREW +'	D 3.0 L 6.0 MSWR3/FZY		
NUT, WASHER							
		504	354-001B	WASHER	P.S D3.1XD6X0.5T		
		517	1WZZR-0004B	WASHER	STOPPER		
		518	1WZZR-0004A	WASHER	STOPPER		

Cabinet & Main Frame Section

S	AL	LOCA.NO	PART NO(GS)	DESCRIPTION	SPECIFICATION	REMARKS
ASSEMBLY PARTS SECTION						
		A43	3721R-F085R	PANEL ASSY,FRONT[NORMAL PARTS]	AC280Y 8PL1L	
		A46	3501R-1148W	BOARD ASSY	MAIN AC280Y 8PL1L	
PARTS SECTION						
		250	3110R-0128D	CASE	TOP(522G)SIDE	NSP
		260	3210R-0023B	FRAME	MAIN (VII-PJT, 60HR)	
		275	4930R-0126A	HOLDER	SUB PCB (AF'S)	NSP
		280	3720R-F063C	PANEL	FRONT (AC989NI EVNT)	
		283	3580R-0037D	DOOR	CST(P-522G)	NSP
		284	442-681A	SPRING	DOOR	
		300	6410RCHV02A	POWER CORD	H03VVH2-F2 X 0.75MM FILTER VOL	NSP
		320	3721R-D023H	PANEL ASSY,DISTRIBUTOR[NORMAL	AF-PAL MONO - 1 SCART	
		323	3111R-0089B	CASE ASSY	PRE-AMP (PBSB-SH)	NSP
		330	3550R-0210A	COVER	BOTTOM(LARGE)	
SCREW						
		452	353-051A	SCREW	SPECIAL	
		457	353-051E	SCREW	SPECIAL (3X12)	
		462	353-136A	SCREW	SPECIAL(FBK) (353S353A)	

Packing Accessory Section

S	AL	LOCA.NO	PART NO(GS)	DESCRIPTION	SPECIFICATION	REMARKS
		801	3835RP0039U	INSTRUCTION ASSY	AC480Y/AC280Y 8PL1L	NSP NSP
		802	3890R-H335B	BOX	AC280Y 8PL1L SW3-A 0.849 2 FLX	
		803	3920R-0067A	PACKING	AF999NS 0.02 65 EPS 12 1190 23	
		804	292-053A	BAG	SOFT(VCP)	
		804	3858R-0006A	SHEET	ROLL(W630XL300MX0.5T)	
		808	534-002C	BATTERY	1.5V AAM UM-3 LOL 1PAIR	
		810	861-505B	CABLE SET ASSY	RF-CABLE,ASSY,PAL	

Remote Control Section

S	AL	LOCA.NO	PART NO(GS)	DESCRIPTION	SPECIFICATION	REMARKS
		900	6711R1P013V	REMOTE CONTROLLER ASSY	N1(N911I 4UL1L)	

Electrical Section

RUN DATE : 99.05.17

CAUTION: The * marks in the parts list designate components which have special characteristics important for safety and should be replaced only with types identical to those in the original circuit or specified in the parts list. Before replacing any of these components, read carefully the SAFETY PRECAUTIONS and SERVICING PRECAUTIONS in the manual. Do not degrade the safety of the unit through improper servicing.

Tolerance

Symbol	C	J	K	M	N	Z	P	A
%	±2	±5	±10	±20	±30	+80 -20	+100 10	+100 -10

CC, CJ, CK: Capacitor, Ceramic
CE: Capacitor, Electrolytic
CQ: Capacitor, Polyester

S	AL	LOCA.NO	PART NO(GS)	SPECIFICATION
CAPACITOR				
C101		624-088F	PCX2 275V 0.1UF, M (PILKO)	
C102		624-088H	PCX2 0.1UF/275VAC R T/P	
C103		624-082F	CE 68UF/400V SHLVN	
C105		OCQ1031Y519	0.01UF D 630V K PE NI TP	
C106		624-087B	HIGH-VOL 100P/1KV SMPS SAMHWA	
C109		OCE336BH638	33UF KME 25V M FMS TP5	
C111		OCN223AK948	0.022UF 50V Z F TA26 S	
C112		OCG3320U630	3300 PF 400V M E R(NK,AD,SD)	
C113		OCG2210U610	220 PF 400V M B R(NK,AD,SD)	
C114		OCQ4732K409	0.047UF S 50V J PE TP	
C115		624-085D	CE 47UF/50V KME (SMPS)	
C116		OCE108BF638	1000UF KME TYPE 16V M FMS TP 5	
C117		OCE477CF638	470UF SHL TYPE 16V M FMS TP 5	
C120		OCE477BH638	470UF KME 25V M FMS TP5	
C121		624-082G	CE 470UF/25V SHL(10*12.5)T/P	
C122		OCN223AK948	0.022UF 50V Z F TA26 S	
C123		OCE4764C638	47M SRA 6.3V M FMS TP(5)	
C124		OCE2264F638	22M SRA 16V M FMS TP(5)	
C151		OCE4754K638	4.7M SRA 50V M FMS TP(5)	
C152		OCE4754K638	4.7M SRA 50V M FMS TP(5)	
C153		OCE4754K638	4.7M SRA 50V M FMS TP(5)	
C156		OCE1064F638	10M SRA 16V M FMS TP(5)	
C157		OCE1064F638	10M SRA 16V M FMS TP(5)	
C159		OCE1064F638	10M SRA 16V M FMS TP(5)	
C218		OCN1040K948	0.1UF 50V Z F TA26 D	
C220		OCN223AK948	0.022UF 50V Z F TA26 S	
C301		OCE1054K638	1.0M SRA/SS50V M FMS TP(5)	
C302		OCN1040K948	0.1UF 50V Z F TA26 D	
C303		OCE1054K638	1.0M SRA/SS50V M FMS TP(5)	
C304		OCE2274C638	220M SRA 6.3V M FMS TP(5)	
C305		OCN1040K948	0.1UF 50V Z F TA26 D	
C306		OCN1030F678	0.01M 16V M Y TA26	
C307		OCX2700K408	27P 50V J SL TA26	
C309		OCN3310K518	330P 50V K B TA26	
C310		OCE4754K638	4.7M SRA 50V M FMS TP(5)	
C311		OCN1810K518	180P 50V K B TA26	
C312		OCX2200K408	22P 50V J SL TP26	
C313		OCN1010K418	100PF 50V J B TA26	
C314		OCN1040K948	0.1UF 50V Z F TA26 D	
C315		OCE1064F638	10M SRA 16V M FMS TP(5)	
C316		OCE1064F638	10M SRA 16V M FMS TP(5)	
C317		OCN1030F678	0.01M 16V M Y TA26	
C318		OCE2254K638	2.2M SRA 50V M FMS TP(5)	

S	AL	LOCA.NO	PART NO(GS)	SPECIFICATION
C319		OCN1040K948	0.1UF 50V Z F TA26 D	
C320		OCN1050K948	1UF 50V Z F TA26 D	
C322		OCE4764C638	47M SRA 6.3V M FMS TP(5)	
C323		OCE4764C638	47M SRA 6.3V M FMS TP(5)	
C324		OCN1040K948	0.1UF 50V Z F TA26 D	
C325		OCN1050K948	1UF 50V Z F TA26 D	
C326		OCE1064F638	10M SRA 16V M FMS TP(5)	
C327		OCN1050K948	1UF 50V Z F TA26 D	
C328		OCN4730K948	0.047M 50V Z F TA26	
C329		OCN1030F678	0.01M 16V M Y TA26	
C330		OCN1030F678	0.01M 16V M Y TA26	
C331		OCE2274C638	220M SRA 6.3V M FMS TP(5)	
C332		OCN1030F678	0.01M 16V M Y TA26	
C334		OCE2274C638	220M SRA 6.3V M FMS TP(5)	
C335		OCN1040K948	0.1UF 50V Z F TA26 D	
C336		OCN1030F678	0.01M 16V M Y TA26	
C337		OCE4754K638	4.7M SRA 50V M FMS TP(5)	
C338		OCN223AK948	0.022UF 50V Z F TA26 S	
C339		OCE4754K638	4.7M SRA 50V M FMS TP(5)	
C340		OCN3330K518	0.033UF 50V K B TA26	
C341		OCN223AK948	0.022UF 50V Z F TA26 S	
C342		OCN1030F678	0.01M 16V M Y TA26	
C343		OCN4730K948	0.047M 50V Z F TA26	
C344		OCN223AK948	0.022UF 50V Z F TA26 S	
C345		OCN223AK948	0.022UF 50V Z F TA26 S	
C346		OCE2274C638	220M SRA 6.3V M FMS TP(5)	
C348		OCE1054K638	1.0M SRA/SS50V M FMS TP(5)	
C350		OCN1030F678	0.01M 16V M Y TA26	
C351		OCN1040K948	0.1UF 50V Z F TA26 D	
C352		OCN1040K948	0.1UF 50V Z F TA26 D	
C353		OCX2200K408	22P 50V J SL TP26	
C354		OCE4764C638	47M SRA 6.3V M FMS TP(5)	
C355		OCN1030F678	0.01M 16V M Y TA26	
C358		OCE1054K638	1.0M SRA/SS50V M FMS TP(5)	
C363		OCX3900K408	39P 50V J SL TA26	
C367		OCN223AK948	0.022UF 50V Z F TA26 S	
C368		OCN1020K518	1000P 50V K B TA26	
C369		OCN223AK948	0.022UF 50V Z F TA26 S	
C370		OCN1810K518	180P 50V K B TA26	
C371		OCN1040K948	0.1UF 50V Z F TA26 D	
C372		OCX6800K408	68P 50V J SL TA26	
C373		OCN1040K948	0.1UF 50V Z F TA26 D	
C375		OCN1040K948	0.1UF 50V Z F TA26 D	
C376		OCN223AK948	0.022UF 50V Z F TA26 S	
C3B1		OCN4730K948	0.047M 50V Z F TA26	

S	AL	LOCA.NO	PART NO(GS)	SPECIFICATION
C401		OCE4764C638	47M SRA 6.3V M FMS TP(5)	
C402		OCN223AK948	0.022UF 50V Z F TA26 S	
C403		OCN1040K948	0.1UF 50V Z F TA26 D	
C405		OCE1064F638	10M SRA 16V M FMS TP(5)	
C406		OCE1064F638	10M SRA 16V M FMS TP(5)	
C408		OCQ1532K409	0.015UF S 50V J PE TP	
C410		OCN1040K948	0.1UF 50V Z F TA26 D	
C412		OCN1040K948	0.1UF 50V Z F TA26 D	
C413		OCN1030F678	0.01M 16V M Y TA26	
C414		OCQ1032K409	0.01UF S 50V J PE TP	
C415		OCE2264F638	22M SRA 16V M FMS TP(5)	
C416		OCN2220F668	2200P 16V M X TA26	
C417		OCN1220F668	1200P 16V M X TA26	
C418		OCQ1532K409	0.015UF S 50V J PE TP	
C419		OCQ1032K409	0.01UF S 50V J PE TP	
C420		OCE4765K618	47UF SR,SV 50V M FL TP 5	
C421		OCQ2232L559	0.022UF S 63V K PP NI TP5	
C422		OCN1040K948	0.1UF 50V Z F TA26 D	
C423		OCE4754K638	4.7M SRA 50V M FMS TP(5)	
C424		OCN1040K948	0.1UF 50V Z F TA26 D	
C425		OCN8210K518	820P 50V K B TA26	
C431		OCN1030F678	0.01M 16V M Y TA26	
C466		OCE3354K638	3.3M SRA 50V M FMS TP(5)	
C4A1		OCE2264F638	22M SRA 16V M FMS TP(5)	
C500		OCE4775C618	470UF SR,SV 6.3V M FL TP 5	
C501		OCN1040K948	0.1UF 50V Z F TA26 D	
C502		OCE4764C638	47M SRA 6.3V M FMS TP(5)	
C503		OCN1040K948	0.1UF 50V Z F TA26 D	
C504		OCE2274C638	220M SRA 6.3V M FMS TP(5)	
C505		OCE4764C638	47M SRA 6.3V M FMS TP(5)	
C506		OCN223AK948	0.022UF 50V Z F TA26 S	
C507		OCN1040K948	0.1UF 50V Z F TA26 D	
C508		OCN1040K948	0.1UF 50V Z F TA26 D	
C509		OCN223AK948	0.022UF 50V Z F TA26 S	
C512		OCN1810K518	180P 50V K B TA26	
C513		OCN1040K948	0.1UF 50V Z F TA26 D	
C514		OCN1800K415	18P 50V J NPO TS	
C515		OCN1800K415	18P 50V J NPO TS	
C516		OCN223AK948	0.022UF 50V Z F TA26 S	
C518		OCN3300K415	33P 50V J NPO TP	
C519		OCN3900K415	39P 50V J NPO TP	
C520		OCN1020K518	1000P 50V K B TA26	
C521		OCN223AK948	0.022UF 50V Z F TA26 S	
C522		OCN1030F678	0.01M 16V M Y TA26	
C524		OCE3364F638	33M SRA 16V M FMS TP(5)	
C525		OCE4764F638	47M SRA/SS 16V M FMS TP(5)	
C526		OCE4764H638	47M SRA 25V M FMS TP(5)	
C527		OCN1810K518	180P 50V K B TA26	
C528		OCN1030F678	0.01M 16V M Y TA26	
C529		OCN1040K948	0.1UF 50V Z F TA26 D	
C530		OCE1064F638	10M SRA 16V M FMS TP(5)	
C532		OCN223AK948	0.022UF 50V Z F TA26 S	
C533		OCN1020K518	1000P 50V K B TA26	
C534		OCE4754K638	4.7M SRA 50V M FMS TP(5)	
C535		OCE4754K638	4.7M SRA 50V M FMS TP(5)	
C536		OCN1030F678	0.01M 16V M Y TA26	
C537		OCN1030F678	0.01M 16V M Y TA26	
C541		OCE4754K638	4.7M SRA 50V M FMS TP(5)	
C542		OCN6810K518	680P 50V K B TA26	
C543		OCN2220F668	2200P 16V M X TA26	
C544		OCQ4732K409	0.047UF S 50V J PE TP	
C545		OCN1040K948	0.1UF 50V Z F TA26 D	

S	AL	LOCA.NO	PART NO(GS)	SPECIFICATION
C546		OCE4764F638	47M SRA/SS 16V M FMS TP(5)	
C551		OCQ3332K409	0.033UF S 50V J PE TP	
C552		OCN1030F678	0.01M 16V M Y TA26	
C556		OCN1030F678	0.01M 16V M Y TA26	
C557		OCN1030F678	0.01M 16V M Y TA26	
C561		OCE4764C638	47M SRA 6.3V M FMS TP(5)	
C564		OCN3310K518	330P 50V K B TA26	
C567		OCN1020K518	1000P 50V K B TA26	
C570		OCN1800K415	18P 50V J NPO TS	
C571		OCN1800K415	18P 50V J NPO TS	
C574		OCN1020K518	1000P 50V K B TA26	
C575		OCN1020K518	1000P 50V K B TA26	
C576		OCN1400K415	14PF 50V J NPO TR	
C577		OCN1400K415	14PF 50V J NPO TR	
C581		OCN1030F678	0.01M 16V M Y TA26	
C582		OCN1030F678	0.01M 16V M Y TA26	
C588		OCE4754K638	4.7M SRA 50V M FMS TP(5)	
C589		OCX2200K408	22P 50V J SL TP26	
C596		OCN223AK948	0.022UF 50V Z F TA26 S	
C5P1		OCE4764F638	47M SRA/SS 16V M FMS TP(5)	
C5P2		OCE4775C618	470UF SR,SV 6.3V M FL TP 5	
C5S1		OCX4300K408	43P 50V J SL TA26	
C5S2		OCN223AK948	0.022UF 50V Z F TA26 S	
C5W1		OCE2274C638	220M SRA 6.3V M FMS TP(5)	
C701		OCE4754K638	4.7M SRA 50V M FMS TP(5)	
C702		OCE1064F638	10M SRA 16V M FMS TP(5)	
C703		OCE4754K638	4.7M SRA 50V M FMS TP(5)	
C704		OCE4764C638	47M SRA 6.3V M FMS TP(5)	
C705		OCN1030F678	0.01M 16V M Y TA26	
C706		OCE477CF638	470UF SHL TYPE 16V M FMS TP 5	
C707		OCN1030F678	0.01M 16V M Y TA26	
C710		OCX4300K408	43P 50V J SL TA26	
C712		OCX5F80K508	5.6PF 50V K SL TA26	
C713		OCE4764C638	47M SRA 6.3V M FMS TP(5)	
C714		OCN1030F678	0.01M 16V M Y TA26	
C7M1		OCN1010K418	100PF 50V J B TA26	
C7M2		OCE4764F638	47M SRA/SS 16V M FMS TP(5)	
C7M3		OCX4300K408	43P 50V J SL TA26	
C7M5		OCE1064F638	10M SRA 16V M FMS TP(5)	
C7M6		OCX2700K408	27P 50V J SL TA26	
C901		OCN1020K518	1000P 50V K B TA26	
C902		OCE477CF638	470UF SHL TYPE 16V M FMS TP 5	
C903		OCN1020K518	1000P 50V K B TA26	
C904		OCN1020K518	1000P 50V K B TA26	
C905		OCE1064F638	10M SRA 16V M FMS TP(5)	
C906		OCE1064F638	10M SRA 16V M FMS TP(5)	
C908		OCN1020K518	1000P 50V K B TA26	
C909		OCX6800K408	68P 50V J SL TA26	
C942		OCE1054K638	1.0U SRA 50V M FMS BP TP(D)	
C951		OCE4764F638	47M SRA/SS 16V M FMS TP(5)	
C952		OCN1040K948	0.1UF 50V Z F TA26 D	
C956		OCE1044K638	0.1M SRA 50V M FMS TP(5)	
C9A1		OCN1020K518	1000P 50V K B TA26	
DIODE				
OR		BD101	0DD160000DA	SI1WBA60(1A 600V) SHIDENKEN

S	AL	LOCA.NO	PART NO(GS)	SPECIFICATION
		D151	00D133009AA	1SS133 DETECT.SW TP
		D152	00D400309AB	IN4003A(1SR35-200A)5M/M TP ROH
		D154	00D400309AB	IN4003A(1SR35-200A)5M/M TP ROH
		D155	00D400309AB	IN4003A(1SR35-200A)5M/M TP ROH
		D301	00D133009AA	1SS133 DETECT.SW TP
		D502	00D133009AA	1SS133 DETECT.SW TP
		D902	00D133009AA	1SS133 DETECT.SW TP
		D903	00D133009AA	1SS133 DETECT.SW TP
		D904	00D133009AA	1SS133 DETECT.SW TP
		DJ01	00D133009AA	1SS133 DETECT.SW TP
		DJ02	00D133009AA	1SS133 DETECT.SW TP
		DJ03	00D133009AA	1SS133 DETECT.SW TP
		DJ08	00D133009AA	1SS133 DETECT.SW TP
		DJ10	00D133009AA	1SS133 DETECT.SW TP
		DJ13	00D133009AA	1SS133 DETECT.SW TP
		DJ16	00D133009AA	1SS133 DETECT.SW TP
DISPLAY TUBE				
		SEG501	514-516E	LTG9606M-R2 LITEON PAL 15
FUSE				
	OR	F101	585-011C	T 1.6A 250V S506
		F101	585-011T	1600MA 250 V 5.2X20 CY/GL SEMK
FILTER				
	OR	L102	616-145H	SHT LFS2020V4-04350
		L102	616-145J	BUJEON V-04350
IC				
	OR	IC101	0ISK615300A	STR-G6153T 5PIN FM CUT BK PWM
		IC103	0IKAE431000A	KIA431 3 PIN TP
		IC103	0ISS431000A	KA431AZ (LM431AZ)
		IC301	0ISA715910A	LA71591M 100QFP BK AVCP 1CHIP
	OR	IC501	0IGS397765A	GMS3977RAA65F 100QFP BK MICOM
		IC501	0IHI397729A	HD3977RC29F 100QFP BK MICOM AF
	OR	IC502	0ISS308200A	KA3082 10-SIP BK MOTOR DRIVE
		IC503	0IAL241600B	AT24C16-10PC 8D EEPROM 16K
		IC504	0IKE703100A	KIA7031P 3P 3.1V RESET(TAPING)
	OR	IC504	0ISS753100A	KA7531Z TO-92 TP 3.1V RESET
		IC505	0IKE704200B	KIA7042P 3P 4.2V RESET(TAPING)
	OR	IC505	0ISS754200A	KA7542Z RESET TO92 TP 4.2V
COIL				
	OR	71R	636-004C	BEAD CORE BFS3550R2FD8.R T/P
		B6908RA		BEAD CORE BFS3550R2FD8.R T/P
		L103	633-088G	CHOCK(22MH) TP 5MM
		L104	633-088G	CHOCK(22MH) TP 5MM
		L301	0LR0102K0P5	LF7.5N OEL 100UH 10% TP 4.8X4.0
		L302	0LA0562K018	56M K 2.3X3.4 L5 TP
		L303	0LA0332K018	33M K 2.3X3.4 L5 TP
		L304	0LR1000K0P5	LF7.5N OEL 100UH 10% TP 4.8X4
		L306	0LR1000K0P5	LF7.5N OEL 100UH 10% TP 4.8X4
		L307	0LR1000K0P5	LF7.5N OEL 100UH 10% TP 4.8X4
		L308	0LA0122K018	12M K 2.3X3.4 L5 TP
		L309	0LR1000K0P5	LF7.5N OEL 100UH 10% TP 4.8X4
		L401	0LA0821K018	8.2M K 2.3X3.4 L5 TP
		L402	0LR6801J045	6800U J 6X7 L5 TP
		L405	0LR0102K0P5	LF7.5N OEL 100UH 10% TP 4.8X4.0
		L502	0LR1000K0P5	LF7.5N OEL 100UH 10% TP 4.8X4

S	AL	LOCA.NO	PART NO(GS)	SPECIFICATION
		L505	0LR1000K0P5	LF7.5N OEL 100UH 10% TP 4.8X4
		L506	635-027C	EL0405RA SKI150G-3 K-TDK 15UH
		L507	0LA000K018	100M K 2.3X3.4 L5 TP
		L5P0	0LR3300K035	330M K 6X6 L5 TP
		L5S1	0LA0332K018	33M K 2.3X3.4 L5 TP
		L5W1	0LR1000K0P5	LF7.5N OEL 100UH 10% TP 4.8X4
		L701	0LR1000K0P5	LF7.5N OEL 100UH 10% TP 4.8X4
		L702	0LR0102K0P5	LF7.5N OEL 10UH 10% TP 4.8X4.0
		L703	0LR0102K0P5	LF7.5N OEL 10UH 10% TP 4.8X4.0
		L704	0LA0821K018	8.2M K 2.3X3.4 L5 TP
		L705	0LR1000K0P5	LF7.5N OEL 100UH 10% TP 4.8X4
		L901	0LA1000K018	100M K 2.3X3.4 L5 TP
		L902	0LA1000K018	100M K 2.3X3.4 L5 TP
		L904	0LA1000K018	100M K 2.3X3.4 L5 TP
		L906	0LA1000K018	100M K 2.3X3.4 L5 TP
		L907	636-004C	BEAD CORE BFS3550R2FD8.R T/P
		TL401	633-032K	BIAC OSC. 1CHIP 5V(KS-75M)
LED				
		LD5W1	0DL160319AA	LTL-16KEE-031 TP LITEON RED D-
CIRCUIT BOARD ASSEMBLY				
		PBM00	6871R-1148W	MAIN AC280Y 8PL1L
		PBT00	6871R-1154A	CLK.PAL
TRANSFORMER				
		T101	642-023M	S/W TRANS EER2828 WIDE X-PJT
TRANSISTOR				
	OR	Q151	0TR320309AA	KTC3203-Y (KTC2120) TP KEC 10P
		Q152	0TR320309AA	KTC3203-Y (KTC2120) TP KEC 10P
		Q153	0TR280400AA	KTC2804-Y BK KEC TO126
		Q158	0TA1268-09BA	ATA1268-BL TP KEC
		Q158	0TR709009AE	KSAT709C-Y TP SAMSUNG TO-92
		Q159	0TR127309AA	ATA1273-TP-Y (KTA966A)KEC
		Q160	0TR101009AF	KRC101M(TO92M), 4.7-4.7,KEC
		Q161	0TR319909AF	KTC3199-BL MINI TP KEC
		Q162	0TR127309AA	ATA1273-TP-Y (KTA966A)KEC
		Q164	0TR127309AA	ATA1273-TP-Y (KTA966A)KEC
		Q165	0TR101009AF	KRC101M(TO92M), 4.7-4.7,KEC
		Q301	0TR319909AF	KTC3199-BL MINI TP KEC
		Q302	0TR319909AF	KTC3199-BL MINI TP KEC
		Q303	0TR126709AC	KTA1267-GR MINI TP KEC
		Q304	0TR319909AF	KTC3199-BL MINI TP KEC
		Q305	0TR126709AC	KTA1267-GR MINI TP KEC
		Q3A2	0TR319909AF	KTC3199-BL MINI TP KEC
		Q401	0TR126709AC	KTA1267-GR MINI TP KEC
		Q402	0TR126709AC	KTA1267-GR MINI TP KEC
		Q403	0TR319909AF	KTC3199-BL MINI TP KEC
		Q404	0TR319909AF	KTC3199-BL MINI TP KEC
		Q405	0TR320309AA	KTC3203-Y (KTC2120) TP KEC 10P
		Q501	0TR319909AF	KTC3199-BL MINI TP KEC
		Q503	0TR126709AC	KTA1267-GR MINI TP KEC
		Q514	0TR103009AE	KRC103M-TP (KRC1203) KEC
		Q515	0TR103009AE	KRC103M-TP (KRC1203) KEC
		Q5P0	0TR319909AF	KTC3199-BL MINI TP KEC
		Q5P1	0TR319909AF	KTC3199-BL MINI TP KEC
		Q5P2	0TR319909AF	KTC3199-BL MINI TP KEC
		Q5P3	0TR319909AF	KTC3199-BL MINI TP KEC
		Q5P4	0TR103009AE	KRC103M-TP (KRC1203) KEC

MODEL:AC280Y 8PL1L

S	AL	LOCA.NO	PART NO(GS)	SPECIFICATION
		Q5P5	0TR103009AE	KRC103M-TP (KRC1203) KEC
		Q5P6	0TR101009AF	KRC101M(TO92M), 4.7-4.7,KEC
		Q5P7	0TR101009AF	KRC101M(TO92M), 4.7-4.7,KEC
		Q5P8	0TR101009AF	KRC101M(TO92M), 4.7-4.7,KEC
		Q5P9	0TR101009AF	KRC101M(TO92M), 4.7-4.7,KEC
		Q5Q0	0TR101009AF	KRC101M(TO92M), 4.7-4.7,KEC
		Q5Q1	0TR101009AF	KRC101M(TO92M), 4.7-4.7,KEC
		Q5Q2	0TR101009AF	KRC101M(TO92M), 4.7-4.7,KEC
		Q5S2	0TR319909AF	KTC3199-BL MINI TP KEC
		Q5W2	0TR103009AE	KRC103M-TP (KRC1203) KEC
		Q701	0TR126709AC	KTA1267-GR MINI TP KEC
		Q902	0TR319909AF	KTC3199-BL MINI TP KEC
		Q903	0TR103009AE	KRC103M-TP (KRC1203) KEC
		Q906	0TR319909AF	KTC3199-BL MINI TP KEC
		Q908	0TR103009AE	KRC103M-TP (KRC1203) KEC
		Q909	0TR103009AF	KRA103M-TP (KRA2203) KEC
RESISTOR				
		R101	614-007R	2.7 OHM 2 W 5% TR RWR
		R102	0RS1003K619	100K OHM 2 W 5% TR
		R103	0RD0821F608	8.2 1/6W 5 TA26
		R104	0RS5602K619	56KOHM 2 W 5% TR
		R109	0RS0350K619	0.35 OHM 2 W 5% TR
		R116	0RD3300F608	330 1/6W 5 TA26
		R117	0RD2201F608	2.2K 1/6W 5 TA26
		R118	0RD1001F608	1.0K 1/6W 5 TA26
		R119	0RN3301F408	3.3K 1/6W 1 TA26
		R120	0RN2701F408	2.70K 1/6W 1% TA26
		R121	0RD1800F608	180 1/6W 5 TA26
		R151	0RD1201F608	1.2K 1/6W 5 TA26
		R152	0RD1201F608	1.2K 1/6W 5 TA26
		R154	0RD1001F608	1.0K 1/6W 5 TA26
		R155	0RD2702F608	27K 1/6W 5 TA26
		R156	0RD1002F608	10K 1/6W 5 TA26
		R157	0RD1001F608	1.0K 1/6W 5 TA26
		R158	0RD2700F608	270 1/6W 5 TA26
		R159	0RD3300F608	330 1/6W 5 TA26
		R161	0RD2700F608	270 1/6W 5 TA26
		R162	0RD3300F608	330 1/6W 5 TA26
		R169	0RD1001F608	1.0K 1/6W 5 TA26
		R170	0RD1001F608	1.0K 1/6W 5 TA26
		R171	0RD3901F608	3.9K 1/6W 5 TA26
		R172	0RD1202F608	12K 1/6W 5 TA26
		R201	0RD4700F608	470 1/6W 5 TA26
		R302	0RD1002F608	10K 1/6W 5 TA26
		R303	0RD1802F608	18K 1/6W 5 TA26
		R304	0RD1002F608	10K 1/6W 5 TA26
		R305	0RD1201F608	1.2K 1/6W 5 TA26
		R306	0RD3300F608	330 1/6W 5 TA26
		R307	0RD3300F608	330 1/6W 5 TA26
		R308	0RD2701F608	2.7K 1/6W 5 TA26
		R309	0RD8200F608	820 1/6W 5 TA26
		R310	0RD1001F608	1.0K 1/6W 5 TA26
		R311	0RD4701F608	4.7K 1/6W 5 TA26
		R312	0RD1801F608	1.8K 1/6W 5 TA26
		R313	0RD2700F608	270 1/6W 5 TA26
		R316	0RD1500F608	150 1/6W 5 TA26
		R317	0RD1003F608	100K 1/6W 5 TA26
		R318	0RD4701F608	4.7K 1/6W 5 TA26
		R319	0RD1001F608	1.0K 1/6W 5 TA26
		R321	0RD1501F608	1.5K 1/6W 5 TA26
		R322	0RD8201F608	8.2K 1/6W 5 TA26

MODEL:AC280Y 8PL1L

S	AL	LOCA.NO	PART NO(GS)	SPECIFICATION
		R323	0RD5601F608	5.6K 1/6W 5 TA26
		R324	0RD1002F608	10K 1/6W 5 TA26
		R325	0RD1001F608	1.0K 1/6W 5 TA26
		R326	0RD2701F608	2.7K 1/6W 5 TA26
		R333	0RD5600F608	560 1/6W 5 TA26
		R335	0RD1802F608	18K 1/6W 5 TA26
		R337	0RD2202F608	22K 1/6W 5 TA26
		R338	0RD2200F608	220 1/6W 5 TA26
		R340	0RD1802F608	18K 1/6W 5 TA26
		R341	0RD3301F608	3.3K 1/6W 5 TA26
		R349	0RD5601F608	5.6K 1/6W 5 TA26
		R350	0RD4700F608	470 1/6W 5 TA26
		R3A3	0RD1001F608	1.0K 1/6W 5 TA26
		R3B1	0RD3301F608	3.3K 1/6W 5 TA26
		R402	0RD2204F608	2.2M 1/6W 5 TA26
		R403	0RD6801F608	6.8K 1/6W 5 TA26
		R404	0RD2700F608	270 1/6W 5 TA26
		R406	0RD2701F608	2.7K 1/6W 5 TA26
		R407	0RD2202F608	22K 1/6W 5 TA26
		R408	0RD2201F608	2.2K 1/6W 5 TA26
		R409	0RD4701F608	4.7K 1/6W 5 TA26
		R410	0RD1002F608	10K 1/6W 5 TA26
		R411	0RD2202F608	22K 1/6W 5 TA26
		R412	0RD1801F608	1.8K 1/6W 5 TA26
		R413	0RD8201F608	8.2K 1/6W 5 TA26
		R414	0RD1202F608	12K 1/6W 5 TA26
		R415	0RD3303F608	330K 1/6W 5 TA26
		R416	0RD1500F608	150 1/6W 5 TA26
		R417	0RD1001F608	1.0K 1/6W 5 TA26
		R418	0RD2702F608	27K 1/6W 5 TA26
		R419	0RD0472F608	47 1/6W 5 TA26
		R420	0RD1001F608	1.0K 1/6W 5 TA26
		R421	0RD0221F608	2.2 1/6W 5 TA26
		R422	0RD5600F608	560 1/6W 5 TA26
		R424	0RD2700F608	270 1/6W 5 TA26
		R425	0RD4702F608	47K 1/6W 5 TA26
		R427	0RD4702F608	47K 1/6W 5 TA26
		R428	0RD3901F608	3.9K 1/6W 5 TA26
		R430	0RD3901F608	3.9K 1/6W 5 TA26
		R431	0RD4701F608	4.7K 1/6W 5 TA26
		R490	0RD4702F608	47K 1/6W 5 TA26
		R491	0RD1202F608	12K 1/6W 5 TA26
		R501	0RD1000F608	100 1/6W 5 TA26
		R502	0RD1000F608	100 1/6W 5 TA26
		R504	0RD1001F608	1.0K 1/6W 5 TA26
		R505	0RD1001F608	1.0K 1/6W 5 TA26
		R506	0RD1001F608	1.0K 1/6W 5 TA26
		R507	0RD1001F608	1.0K 1/6W 5 TA26
		R508	0RD4701F608	4.7K 1/6W 5 TA26
		R509	0RD1202F608	12K 1/6W 5 TA26
		R510	0RD2201F608	2.2K 1/6W 5 TA26
		R511	0RD1001F608	1.0K 1/6W 5 TA26
		R512	0RD1001F608	1.0K 1/6W 5 TA26
		R513	0RD1003F608	100K 1/6W 5 TA26
		R515	0RD2700F608	270 1/6W 5 TA26
		R517	0RD004F608	1.0M 1/6W 5 TA26
		R518	0RD5600F608	560 1/6W 5 TA26
		R519	0RD2702F608	27K 1/6W 5 TA26
		R521	0RD3301F608	3.3K 1/6W 5 TA26
		R522	0RD1001F608	1.0K 1/6W 5 TA26
		R523	0RD1502F608	15K 1/6W 5 TA26
		R524	0RF0681J619	6.8 OHM 1 W 5% TR

RUN DATE : 99.05.17

S	AL	LOCA.NO	PART NO(GS)	SPECIFICATION
		R525	ORD5601F608	5.6K 1/6W 5 TA26
		R526	ORD5601F608	5.6K 1/6W 5 TA26
		R527	ORD5600F608	560 1/6W 5 TA26
		R528	ORD1002F608	10K 1/6W 5 TA26
		R529	ORD1002F608	10K 1/6W 5 TA26
		R531	ORD1002F608	10K 1/6W 5 TA26
		R534	ORD1004F608	1.0M 1/6W 5 TA26
		R542	ORD2201F608	2.2K 1/6W 5 TA26
		R543	ORD1000F608	100 1/6W 5 TA26
		R544	ORD4701F608	4.7K 1/6W 5 TA26
		R545	ORD2201F608	2.2K 1/6W 5 TA26
		R546	ORD5601F608	5.6K 1/6W 5 TA26
		R547	ORD1202F608	12K 1/6W 5 TA26
		R548	ORD1003F608	100K 1/6W 5 TA26
		R550	ORD2200F608	220 1/6W 5 TA26
		R553	ORD2200F608	220 1/6W 5 TA26
		R555	ORD2200F608	220 1/6W 5 TA26
		R556	ORD2202F608	22K 1/6W 5 TA26
		R557	ORD2702F608	27K 1/6W 5 TA26
		R558	ORD2202F608	22K 1/6W 5 TA26
		R559	ORD4701F608	4.7K 1/6W 5 TA26
		R560	ORD4701F608	4.7K 1/6W 5 TA26
		R561	ORD5600F608	560 1/6W 5 TA26
		R562	ORD5600F608	560 1/6W 5 TA26
		R563	ORD1002F608	10K 1/6W 5 TA26
		R564	ORD2702F608	27K 1/6W 5 TA26
		R567	ORD8200F608	820 1/6W 5 TA26
		R568	ORD6803F608	680K 1/6W 5 TA26
		R570	ORD4701F608	4.7K 1/6W 5 TA26
		R575	ORD4701F608	4.7K 1/6W 5 TA26
		R576	ORD4701F608	4.7K 1/6W 5 TA26
		R577	ORD4701F608	4.7K 1/6W 5 TA26
		R578	ORD4701F608	4.7K 1/6W 5 TA26
		R579	ORD5602F608	56K 1/6W 5 TA26
		R581	ORD6802F608	68K 1/6W 5 TA26
		R583	ORD1002F608	10K 1/6W 5 TA26
		R586	ORD2201F608	2.2K 1/6W 5 TA26
		R589	ORD1004F608	1.0M 1/6W 5 TA26
		R590	ORD1001F608	1.0K 1/6W 5 TA26
		R591	ORD4700F608	470 1/6W 5 TA26
		R592	ORD1000F608	100 1/6W 5 TA26
		R5B1	ORD1001F608	1.0K 1/6W 5 TA26
		R5B3	ORD1001F608	1.0K 1/6W 5 TA26
		R5B4	ORD1001F608	1.0K 1/6W 5 TA26
		R5B5	ORD1000F608	100 1/6W 5 TA26
		R5C1	ORD1001F608	1.0K 1/6W 5 TA26
		R5C2	ORD1001F608	1.0K 1/6W 5 TA26
		R5C3	ORD1001F608	1.0K 1/6W 5 TA26
		R5C4	ORD1001F608	1.0K 1/6W 5 TA26
		R5C5	ORD1001F608	1.0K 1/6W 5 TA26
		R5C6	ORD1001F608	1.0K 1/6W 5 TA26
		R5C7	ORD1001F608	1.0K 1/6W 5 TA26
		R5C9	ORD1002F608	10K 1/6W 5 TA26
		R5E7	ORD1002F608	10K 1/6W 5 TA26
		R5E8	ORD1002F608	10K 1/6W 5 TA26
		R5K1	ORD1801F608	1.8K 1/6W 5 TA26
		R5K3	ORD2201F608	2.2K 1/6W 5 TA26
		R5P0	ORD5600F608	560 1/6W 5 TA26
		R5P1	ORD5600F608	560 1/6W 5 TA26
		R5P2	ORD5600F608	560 1/6W 5 TA26
		R5P3	ORD5600F608	560 1/6W 5 TA26
		R5Q3	ORD3300F608	330 1/6W 5 TA26

S	AL	LOCA.NO	PART NO(GS)	SPECIFICATION
		R5Q4	ORD3300F608	330 1/6W 5 TA26
		R5Q5	ORD3300F608	330 1/6W 5 TA26
		R5Q6	ORD3300F608	330 1/6W 5 TA26
		R5Q7	ORD3300F608	330 1/6W 5 TA26
		R5Q8	ORD3300F608	330 1/6W 5 TA26
		R5Q9	ORD3300F608	330 1/6W 5 TA26
		R5S2	ORD6801F608	6.8K 1/6W 5 TA26
		R5S3	ORD3300F608	330 1/6W 5 TA26
		R5T2	ORD1801F608	1.8K 1/6W 5 TA26
		R5T3	ORD1501F608	1.5K 1/6W 5 TA26
		R5T4	ORD2701F608	2.7K 1/6W 5 TA26
		R5U0	ORD1800F608	180 1/6W 5 TA26
		R5U1	ORD1800F608	180 1/6W 5 TA26
		R5U2	ORD3300F608	330 1/6W 5 TA26
		R5V1	ORD2201F608	2.2K 1/6W 5 TA26
		R5V2	ORD1501F608	1.5K 1/6W 5 TA26
		R5W1	ORD2200F608	220 1/6W 5 TA26
		R704	ORD4700F608	470 1/6W 5 TA26
		R706	ORD2200F608	220 1/6W 5 TA26
		R707	ORD2200F608	220 1/6W 5 TA26
		R7M1	ORD1001F608	1.0K 1/6W 5 TA26
		R7M3	ORD1001F608	1.0K 1/6W 5 TA26
		R7M5	ORD2200F608	220 1/6W 5 TA26
		R901	ORD0752F608	75 1/6W 5 TA26
		R902	ORD0752F608	75 1/6W 5 TA26
		R903	ORD5600F608	560 1/6W 5 TA26
		R904	ORD5600F608	560 1/6W 5 TA26
		R905	ORD5600F608	560 1/6W 5 TA26
		R906	ORD5600F608	560 1/6W 5 TA26
		R921	ORD8200F608	820 1/6W 5 TA26
		R922	ORD1001F608	1.0K 1/6W 5 TA26
		R931	ORD1803F608	180K 1/6W 5 TA26
		R932	ORD2203F608	220K 1/6W 5 TA26
		R936	ORD1001F608	1.0K 1/6W 5 TA26
		R943	ORD1501F608	1.5K 1/6W 5 TA26
REMOCON RECEIVER				
		R/C5W1	6712R2038GC	TSOP1838QJ1 TEMIC 20MM 37.9KHZ
SENSOR				
	OR	ES501	4931R 0016A	END
		ES502	4931R 0016A	END
		IC102	657 062B	PC123Y PHOTO COUPLER(SARPH)
		IC102	657 063A	LTV-817B PHOTO COUPLER(LITEON)
		LD501	4931R 0017A	LED
		RS501	6500RAB002A	GP1S566 SHARP D-33 REEL SENSOR
		RS502	6500RAB002A	GP1S566 SHARP D-33 REEL SENSOR
SWITCH				
	OR	CS501	6600RDB004B	SPPB62042 ALPS UL 5V 0A HORIZO
		CS501	6600RDB004C	MPU10252MLB4 MIC NON 5V 0.01A
		MS501	6600RPY001B	MMS00420ZMBO MIC NON 5V 1MA VE
		SW5K1	556-213C	SKHV10912A LGEC NON 12V 5A VER
		SW5K2	556-213C	SKHV10912A LGEC NON 12V 5A VER
		SW5K3	556-213C	SKHV10912A LGEC NON 12V 5A VER
		SW5T1	556-213C	SKHV10912A LGEC NON 12V 5A VER
		SW5T2	556-213C	SKHV10912A LGEC NON 12V 5A VER
		SW5T3	556-213C	SKHV10912A LGEC NON 12V 5A VER
		SW5T4	556-213C	SKHV10912A LGEC NON 12V 5A VER
	OR	SW5T4	556-266B	TACK S/W.EVQ-21309R(MATSUSHID)

RUN DATE : 99.05.17

S	AL	LOCA.NO	PART NO(GS)	SPECIFICATION
	OR	SW5T4	556-282D	SKQNALD010 9.5 J-ALPS NON 12V
		SW5V1	556-213C	SKHV10912A LGEC NON 12V 5A VER
	OR	SW5V1	556-266B	TACK S/W.EVQ-21309R(MATSUSHID)
	OR	SW5V1	556-282D	SKQNALD010 9.5 J-ALPS NON 12V
		SW5V2	556-213C	SKHV10912A LGEC NON 12V 5A VER
	OR	SW5V2	556-266B	TACK S/W.EVQ-21309R(MATSUSHID)
	OR	SW5V2	556-282D	SKQNALD010 9.5 J-ALPS NON 12V
TUNER				
	OR	TU701	6700RP3G01D	TCMK0600PD08C SS G/K MONO 3IN1
		TU701	6700RP3L02D	TADC-W004D LGC&D G/K MONO 3IN1
VARIABLE RESISTOR				
		VR501	613-032W	RH063MCJ5R (220K)
CRYSTAL				
	OR	X502	529-001B	32.768KHZ 3*8.KDS
		X502	529-001K	32.768KHZ SEIKO
RESONATOR				
	OR	X301	6202R1443AC	X-TAL 4.433709M 15PPM SER KJE
	OR	X301	6202R1443AD	4.433709M 15PPM SER SUNNY
		X301	6202R1443AE	TAEIL HC49U 4.433709MHZ 15PPM
	OR	X501	6202R31001E	ATS TAEIL RADIAL 10.0000MHZ 30
		X501	6202R31001F	HC-49S KEUMSEOK RADIAL 10.0000
	OR	X503	6202R31771E	ATS TAEIL RADIAL 17.734476MHZ
		X503	6202R31771F	HC-49S KEUMSEOK RADIAL 17.7344
ZENER DIODE				
		ZD151	0DZ130009AA	MTZ13A TP ROHM-K
		ZD152	0DZ100009FA	MTZ10-C T-77 10V TP,ROHM/K
		ZD153	0DZ130009AA	MTZ13A TP ROHM-K
		ZD501	0DZ680009CA	MTZ6 8C TP ROHM-K
		ZD503	0DZ620009AA	MTZ6 2B (TA)
		ZD701	0DZ330009AF	MTZ33B,TP,ROHM-K
		ZD9A1	0DZ130009AA	MTZ13A TP ROHM-K

S	AL	LOCA.NO	PART NO(GS)	SPECIFICATION
		SW5K2	556-213C	SKHV10912A LGEC NON 12V 5A VER
		SW5K3	556-213C	SKHV10912A LGEC NON 12V 5A VER
		SW5T1	556-213C	SKHV10912A LGEC NON 12V 5A VER
		SW5T2	556-213C	SKHV10912A LGEC NON 12V 5A VER
		SW5T3	556-213C	SKHV10912A LGEC NON 12V 5A VER
		SW5T4	556-213C	SKHV10912A LGEC NON 12V 5A VER
OR		SW5T4	556-266B	TACK S/W,EVQ-21309R(MATSUSHID)
OR		SW5T4	556-282D	SKONALD010 9.5 J-ALPS NON 12V
		SW5V1	556-213C	SKHV10912A LGEC NON 12V 5A VER
OR		SW5V1	556-266B	TACK S/W,EVQ-21309R(MATSUSHID)
OR		SW5V1	556-282D	SKONALD010 9.5 J-ALPS NON 12V
		SW5V2	556-213C	SKHV10912A LGEC NON 12V 5A VER
OR		SW5V2	556-266B	TACK S/W,EVQ-21309R(MATSUSHID)
OR		SW5V2	556-282D	SKONALD010 9.5 J-ALPS NON 12V
TUNER				
	OR	TU701	6700RP3G01D	TCMK0600PD08C SS G/K MONO 3IN1
		TU701	6700RP3L02D	TADC-W004D LGC&D G/K MONO 3IN1
VARIABLE RESISTOR				
		VR501	613-032W	RH063MCJ5R (220K)
CRYSTAL				
	OR	X502	529-001B	32.768KHZ 3*8,KDS
		X502	529-001K	32.768KHZ SEIKO
RESONATOR				
	OR	X301	6202R1443AC	X-TAL 4.433709M 15PPM SER KJE
	OR	X301	6202R1443AD	4.433709M 15PPM SER SUNNY
		X301	6202R1443AE	TAEIL HC49U 4.433709MHZ 15PPM
	OR	X501	6202R31001E	ATS TAEIL RADIAL 10.0000MHZ 30
		X501	6202R31001F	HC-49S KEUMSEOK RADIAL 10.0000
	OR	X503	6202R31771E	ATS TAEIL RADIAL 17.734476MHZ
		X503	6202R31771F	HC-49S KEUMSEOK RADIAL 17.7344
ZENER DIODE				
		ZD151	0DZ130009AA	MTZ13A TP ROHM-K
		ZD152	0DZ100009FA	MTZ10-C T-77 10V TP,ROHM/K
		ZD153	0DZ130009AA	MTZ13A TP ROHM-K
		ZD501	0DZ680009CA	MTZ6 8C TP ROHM-K
		ZD503	0DZ620009AA	MTZ6 2B (TA)
		ZD701	0DZ330009AF	MTZ33B,TP,ROHM K
		ZD9A1	0DZ130009AA	MTZ13A TP ROHM K

MEMO

SECTION 5 REPLACEMENT PARTS LIST

· Mechanical Section

RUN DATE : 99.05.18
NSP: Not Service Part

S	AL	LOCA.NO	PART NO(GS)	DESCRIPTION	SPECIFICATION	REMARKS
ASSEMBLY PARTS SECTION						
	OR	A00	6721R-0132A	DECK ASSY	D33 (4HD, PAL, JOG)	
		A01	6723R-0102D	DRUM ASSY	D33-4CH PAL (5P4)	
		A01	6723R-B102D	DRUM(CIRC) ASSY	D33-4CH PAL (5P4)	
		A02	4261R-0012A	ARM ASSY!	T/UP	
		A03	4261R-0003A	ARM ASSY!	CLEANER	
		A04	4811R-0011A	BRACKET ASSY	L/D MOTOR	
		A11	4470R-0028A	GEAR	ASSY P3	
		A12	4470R-0026A	GEAR	ASSY P2	
		A13	4811R-0012A	BRACKET ASSY	JOG	
		A14	4421R-0005B	BRAKE ASSY	CAPSTAN	
		A21	4931R-0015A	HOLDER ASSY	CST	
		A22	4811R-0014A	BRACKET ASSY	DOOR	
		A23	4261R-0010A	ARM ASSY!	F/L	
		A24	4510R-0019A	LEVER	ASSY SWITCH	
PARTS SECTION						
	OR	001	6723R-0105D	DRUM ASSY	SUB D33-4CH PAL (5P4)	
		002	4680RB0004A	MOTOR(MECH)	DRUM F20EL-81 SANKYO D33	
		002	4680RB0005A	MOTOR(MECH)	DRUM GVD-033A LGEC D33	
		003	4930R-0107A	HOLDER	FPC(4CH)	
		004	5006R-0014A	CAP	FPC	
		005	276-100A	CAP	A CLEANER	NSP
		006	434-242A	ROLLER	CLEANER	NSP
		007	4260R-0009A	ARM	CLEANER	NSP
		008	4970R-0043A	SPRING	T/UP	
		009	4260R-0011A	ARM	T/UP	
		010	4770R-0004A	BAND (MECH)	ASSY TENSION	
		011	4261R-0004A	ARM ASSY!	TENSION	
		012	3041R-0003A	BASE ASSY	P2	
	OR	012	3041R-0003B	BASE ASSY	P2 (D/C)	
		013	3041R-0004A	BASE ASSY	P3	
	OR	013	3041R-0004B	BASE ASSY	P3(D/C)	
		014	3041R-0007A	BASE ASSY	P4	
		015	5870R-0001A	OPENER	LID	
		016	3041R-0005A	BASE ASSY	A/C HEAD(LGEC)	
		017	4408R-0001A	REEL	S	
		018	4970R-0054A	SPRING	SB	
		019	4421R-0003A	BRAKE ASSY	S	
		020	4970R-0053A	SPRING	TB	
		021	4421R-0004A	BRAKE ASSY	T	
		022	523-833B	HEAD	FE D33 . LG C&D/ST	
		023	4980R-0010A	SUPPORTER	CST	
		024	4261R-0009A	ARM ASSY!	IDLER-J	
		025	4810R-0053A	BRACKET	L/D MOTOR	NSP
		026	4681R-0007A	MOTOR ASSY	L/D	NSP
		027	4470R-0025A	GEAR	WHEEL	NSP
		028	4408R-0002A	REEL	T	
		029	4261R-0011A	ARM ASSY!	PINCH (MOLD BEARING)	

S	AL	LOCA.NO	PART NO(GS)	DESCRIPTION	SPECIFICATION	REMARKS	
OR		031	4970R-0052A	SPRING	TENSION	NSP	
		032	3141R-0002A	CHASSIS ASSY	D33		
		051	4400R-0005A	BELT	CAPSTAN		
		052	4680RA0002A	MOTOR(MECH)	CAPSTAN F2QSB SANKYO D33		
		052	4680RA0003A	MOTOR(MECH)	CAPSTAN GVC-033A LGEC D33		
		053	4974R-0018A	GUIDE	RACK F/L		
		054	4470R-0037A	GEAR	RACK F/L		
		055	4470R-0033A	GEAR	DRIVE		
		056	4470R-0032A	GEAR	CAM		
		057	4470R-0036B	GEAR	CONNECT		
		058	4420R-0005A	BRAKE	CAPSTAN		
		059	4970R-0059A	SPRING	CAPSTAN		
		060	4510R-0025A	LEVER	F/R		
		061	4265R-0002A	CLUTCH ASSY	D33		
		062	4470R-0044A	GEAR	ASSY UP/D		
		063	4970R-0051A	SPRING	UP/D		
		064	4470R-0034A	GEAR	SECTOR		
		065	4510R-0016A	LEVER	P3		NSP
		066	4970R-0046A	SPRING	L/D		NSP
		067	4470R-0029A	GEAR	P3		NSP
		068	4470R-0027A	GEAR	P2		NSP
		069	4970R-0046A	SPRING	L/D		NSP
		070	4510R-0015A	LEVER	P2		NSP
		071	4810R-0054A	BRACKET	JOG		NSP
		072	4510R-0017A	LEVER	JOG		NSP
		073	4510R-0018A	LEVER	SLOW		NSP
		074	4970R-0049A	SPRING	JOG		NSP
		075	4470R-0031A	GEAR	JOG		NSP
		076	4260R-0017A	ARM	JOG		NSP
		077	3300R-0157A	PLATE	SLIDER		
		078	4510R-0022A	LEVER	TENSION		
		079	3040R-0018A	BASE	TENSION		
		100	3301R-0029A	PLATE ASSY	TOP		
		101	4810R-0056A	BRACKET	SIDE(L)		NSP
		102	4510R-0023A	LEVER	STOPPER(L)		NSP
		103	4930R-0099A	HOLDER	SIDE(L)		
		104	4974R-0019A	GUIDE	CST		
		105	4930R-0098A	HOLDER	CST		NSP
		106	4930R-0100A	HOLDER	SIDE(R)		NSP
		107	4510R-0024A	LEVER	STOPPER(R)		NSP
		108	4810R-0055A	BRACKET	SIDE(R)		NSP
		109	5870R-0002A	OPENER	DOOR		NSP
		110	4260R-0018A	ARM	F/L(L)		NSP
		111	4970R-0055A	SPRING	F/L(L)		NSP
		112	3070R-0001A	BODY	F/L		NSP
		113	4970R-0056A	SPRING	F/L(R)		NSP
		114	4260R-0019A	ARM	F/L(R)		NSP
		115	4970R-0050A	SPRING	SWITCH		
		116	4510R-0020A	LEVER	SWITCH		
SCREW							
		401	1MPK0261418	PAN HEAD MACHINE SCREW +.	+ D2.6 L4.0 MSWR3 / FZY		
		406	1MEC0302018	PAN HEAD MACHINE SCREW S/W +	D3.0 L 6.0 MSWR3/FZY		
		407	1APF0201718	SCREW TAP TITE(B).PAN HEAD	+ D2.0 L5.0 MSWR3/FZY		

RUN DATE : 99.05.18
NSP: Not Service Part

S	AL	LOCA.NO	PART NO(GS)	DESCRIPTION	SPECIFICATION	REMARKS
		409	1MGC0302418	PAN HEAD MACN SCREW S/P WASH +	D3.0 L 8.0 MSWR3/FZY	
		410	1APF0262218	SCREW TAP TITE(B).PAN HEAD	+ D2.6 L6.8 MSWR3/FZY	
		426	1MPC0302018	PAN HEAD MACHINE SCREW +!	D3.0 L 6.0 MSWR3/FZY	
NUT, WASHER						
		504	354-001B	WASHER	P.S D3.1XD6X0.5T	
		517	1WZZR-0004B	WASHER	STOPPER	
		518	1WZZR-0004A	WASHER	STOPPER	

• Cabinet & Main Frame Section

S	AL	LOCA.NO	PART NO(GS)	DESCRIPTION	SPECIFICATION	REMARKS
ASSEMBLY PARTS SECTION						
		A43	3721R-F085Q	PANEL ASSY,FRONT[NORMAL PARTS]	AC480Y 8PL1L	
		A46	3501R-1148X	BOARD ASSY	MAIN AC480Y 8PL1L	
PARTS SECTION						
		250	3110R-0128D	CASE	TOP(522G)SIDE	NSP
		260	3210R-0023B	FRAME	MAIN (VII-PJT, 60HR)	
		275	4930R-0126A	HOLDER	SUB PCB (AFS)	NSP
		280	3720R-F063C	PANEL	FRONT (AC989NI EVNT)	
		283	3580R-0037D	DOOR	CST(P-522G)	NSP
		284	442-681A	SPRING	DOOR	
		300	6410RCHV02A	POWER CORD	H03VVH2-F2 X 0.75MM FILTER VOL	NSP
		320	3721R-D023H	PANEL ASSY,DISTRIBUTOR[NORMAL	AF-PAL MONO - 1 SCART	
		323	3111R-0089B	CASE ASSY	PRE-AMP (PBSB-SH)	
		330	3550R-0210A	COVER	BOTTOM(LARGE)	
SCREW						
		452	353-051A	SCREW	SPECIAL	
		457	353-051E	SCREW	SPECIAL (3X12)	
		462	353-136A	SCREW	SPECIAL(FBK) (353S353A)	

• Packing Accessory Section

RUN DATE : 99.05.18
NSP: Not Service Part

S	AL	LOCA.NO	PART NO(GS)	DESCRIPTION	SPECIFICATION	REMARKS
	OR	801	3835RP0039U	INSTRUCTION ASSY	AC480Y/AC280Y 8PL1L	NSP NSP
		802	3890R-H335C	BOX	AC480Y 8PL1L SW3-A 0.849 2 FLX	
		803	3920R-0067A	PACKING	AF999NS 0.02 65 EPS 12 1190 23	
		804	292-053A	BAG	SOFT(VCP)	
		804	3858R-0006A	SHEET	ROLL(W630XL300MX0.5T)	
		808	534-002C	BATTERY	1.5V AAM UM-3 LOL 1PAIR	
		810	861-505B	CABLE SET ASSY	RF-CABLE,ASSY,PAL	

• Remote Control Section

RUN DATE : 99.05.18
NSP: Not Service Part

S	AL	LOCA.NO	PART NO(GS)	DESCRIPTION	SPECIFICATION	REMARKS
		900	6711R1P013V	REMOTE CONTROLLER ASSY	N1	

• Electrical Section

RUN DATE : 99.05.18

CAUTION: The * marks in the parts list designate components which have special characteristics important for safety and should be replaced only with types identical to those in the original circuit or specified in the parts list. Before replacing any of these components, read carefully the SAFETY PRECAUTIONS and SERVICING PRECAUTIONS in the manual. Do not degrade the safety of the unit through improper servicing.

Tolerance

Symbol	C	J	K	M	N	Z	P	A
%	±2	±5	±10	±20	±30	+80 -20	+100 -10	+100 -10

CC, CJ, CK: Capacitor, Ceramic
CE: Capacitor, Electrolytic
CQ: Capacitor, Polyester

S	AL	LOCA.NO	PART NO(GS)	SPECIFICATION
CAPACITOR				
		C101	624-088F	PCX2 275V 0.1UF, M (PILKO)
		C102	624-088H	PCX2 0.1UF/275VAC R T/P
		C103	624-082F	CE 68UF/400V SHLVN
		C105	0CQ1031Y519	0.01UF D 630V K PE NI TP
		C106	624-087B	HIGH-VOL 100P/1KV SMPS SAMHWA
		C109	0CE336BH638	33UF KME 25V M FM5 TP5
		C111	0CN223AK948	0.022UF 50V Z F TA26 S
		C112	0CG3320U630	3300 PF 400V M E R(NK,AD,SD)
		C113	0CG2210U610	220 PF 400V M B R(NK,AD,SD)
		C114	0CQ4732K409	0.047UF S 50V J PE TP
		C115	624-085D	CE 47UF/50V KME (SMPS)
		C116	0CE108BF638	1000UF KME TYPE 16V M FM5 TP 5
		C117	0CE477CF638	470UF SHL TYPE 16V M FM5 TP 5
		C120	0CE477BH638	470UF KME 25V M FM5 TP5
		C121	624-082G	CE 470UF/25V SHL(10*12.5)T/P
		C122	0CN223AK948	0.022UF 50V Z F TA26 S
		C123	0CE476AC638	47M SRA 6.3V M FM5 TP(5)
		C124	0CE2264F638	22M SRA 16V M FM5 TP(5)
		C151	0CE4754K638	4.7M SRA 50V M FM5 TP(5)
		C152	0CE4754K638	4.7M SRA 50V M FM5 TP(5)
		C153	0CE4754K638	4.7M SRA 50V M FM5 TP(5)
		C156	0CE1064F638	10M SRA 16V M FM5 TP(5)
		C157	0CE1064F638	10M SRA 16V M FM5 TP(5)
		C159	0CE1064F638	10M SRA 16V M FM5 TP(5)
		C218	0CN1040K948	0.1UF 50V Z F TA26 D
		C220	0CN223AK948	0.022UF 50V Z F TA26 S
		C301	0CN1040K948	0.1UF 50V Z F TA26 D
		C302	0CN1040K948	0.1UF 50V Z F TA26 D
		C303	0CE1054K638	1.0M SRA/SS50V M FM5 TP(5)
		C304	0CE2274C638	220M SRA 6.3V M FM5 TP(5)
		C305	0CN1040K948	0.1UF 50V Z F TA26 D
		C306	0CN1030F678	0.01M 16V M Y TA26
		C307	0CX2700K408	27P 50V J SL TA26
		C309	0CN3310K518	330P 50V K B TA26
		C310	0CE4754K638	4.7M SRA 50V M FM5 TP(5)
		C311	0CN1810K518	180P 50V K B TA26
		C312	0CX2200K408	22P 50V J SL TP26
		C313	0CN1010K418	100PF 50V J B TA26
		C314	0CN1040K948	0.1UF 50V Z F TA26 D
		C315	0CE1064F638	10M SRA 16V M FM5 TP(5)
		C316	0CE1064F638	10M SRA 16V M FM5 TP(5)
		C317	0CN1030F678	0.01M 16V M Y TA26
		C318	0CE2254K638	2.2M SRA 50V M FM5 TP(5)
		C319	0CN1040K948	0.1UF 50V Z F TA26 D
		C320	0CN1050K948	1UF 50V Z F TA26 D
		C322	0CE476AC638	47M SRA 6.3V M FM5 TP(5)
		C323	0CE476AC638	47M SRA 6.3V M FM5 TP(5)
		C324	0CN1040K948	0.1UF 50V Z F TA26 D
		C325	0CN1050K948	1UF 50V Z F TA26 D
		C326	0CE1064F638	10M SRA 16V M FM5 TP(5)
		C327	0CN1050K948	1UF 50V Z F TA26 D
		C328	0CN4730K948	0.047M 50V Z F TA26
		C329	0CN1030F678	0.01M 16V M Y TA26
		C330	0CN1030F678	0.01M 16V M Y TA26
		C331	0CE2274C638	220M SRA 6.3V M FM5 TP(5)
		C332	0CN1030F678	0.01M 16V M Y TA26
		C334	0CE2274C638	220M SRA 6.3V M FM5 TP(5)
		C335	0CN1040K948	0.1UF 50V Z F TA26 D
		C336	0CN1030F678	0.01M 16V M Y TA26
		C337	0CE4754K638	4.7M SRA 50V M FM5 TP(5)
		C338	0CN223AK948	0.022UF 50V Z F TA26 S
		C339	0CE4754K638	4.7M SRA 50V M FM5 TP(5)
		C340	0CN3330K518	0.033UF 50V K B TA26
		C341	0CN223AK948	0.022UF 50V Z F TA26 S
		C342	0CN1030F678	0.01M 16V M Y TA26
		C343	0CN4730K948	0.047M 50V Z F TA26
		C344	0CN223AK948	0.022UF 50V Z F TA26 S
		C345	0CN223AK948	0.022UF 50V Z F TA26 S
		C346	0CE2274C638	220M SRA 6.3V M FM5 TP(5)
		C348	0CE1054K638	1.0M SRA/SS50V M FM5 TP(5)
		C350	0CN1040K948	0.1UF 50V Z F TA26 D
		C351	0CN1040K948	0.1UF 50V Z F TA26 D
		C352	0CN1040K948	0.1UF 50V Z F TA26 D
		C353	0CX2200K408	22P 50V J SL TP26
		C354	0CE476AC638	47M SRA 6.3V M FM5 TP(5)
		C355	0CN1030F678	0.01M 16V M Y TA26
		C358	0CE1054K638	1.0M SRA/SS50V M FM5 TP(5)
		C363	0CX3900K408	39P 50V J SL TA26
		C367	0CN223AK948	0.022UF 50V Z F TA26 S
		C368	0CN1020K518	1000P 50V K B TA26
		C369	0CN223AK948	0.022UF 50V Z F TA26 S
		C370	0CN1810K518	180P 50V K B TA26
		C371	0CN1040K948	0.1UF 50V Z F TA26 D
		C372	0CX6800K408	68P 50V J SL TA26
		C373	0CN1040K948	0.1UF 50V Z F TA26 D
		C375	0CN1040K948	0.1UF 50V Z F TA26 D
		C376	0CN223AK948	0.022UF 50V Z F TA26 S
		C3A1	0CN223AK948	0.022UF 50V Z F TA26 S

S	AL	LOCA.NO	PART NO(GS)	SPECIFICATION
		C3B1	0CN3330K518	0.033UF 50V K B TA26
		C401	0CE4764C638	47M SRA 6.3V M FM5 TP(5)
		C402	0CN2232AK948	0.022UF 50V Z F TA26 S
		C403	0CN1040K948	0.1UF 50V Z F TA26 D
		C405	0CE1064F638	10M SRA 16V M FM5 TP(5)
		C406	0CE1064F638	10M SRA 16V M FM5 TP(5)
		C408	0CQ1532K409	0.015UF S 50V J PE TP
		C410	0CN1040K948	0.1UF 50V Z F TA26 D
		C412	0CN1040K948	0.1UF 50V Z F TA26 D
		C413	0CN1030F678	0.01M 16V M Y TA26
		C414	0CQ1032K409	0.01UF S 50V J PE TP
		C415	0CE2264F638	22M SRA 16V M FM5 TP(5)
		C416	0CN2220F668	2200P 16V M X TA26
		C417	0CN1220F668	1200P 16V M X TA26
		C418	0CQ1532K409	0.015UF S 50V J PE TP
		C419	0CQ1032K409	0.01UF S 50V J PE TP
		C420	0CE4765K618	47UF SR,SV 50V M FL TP 5
		C421	0CQ2232L559	0.022UF S 63V K PP NI TP5
		C422	0CN1040K948	0.1UF 50V Z F TA26 D
		C423	0CE4754K638	4.7M SRA 50V M FM5 TP(5)
		C424	0CN1040K948	0.1UF 50V Z F TA26 D
		C425	0CN8210K518	820P 50V K B TA26
		C431	0CN1030F678	0.01M 16V M Y TA26
		C466	0CE3354K638	3.3M SRA 50V M FM5 TP(5)
		CA41	0CE2264F638	22M SRA 16V M FM5 TP(5)
		C500	0CE4775C618	470UF SR,SV 6.3V M FL TP 5
		C501	0CN1040K948	0.1UF 50V Z F TA26 D
		C502	0CE4764C638	47M SRA 6.3V M FM5 TP(5)
		C503	0CN1040K948	0.1UF 50V Z F TA26 D
		C504	0CE2274C638	220M SRA 6.3V M FM5 TP(5)
		C505	0CE4764C638	47M SRA 6.3V M FM5 TP(5)
		C506	0CN223AK948	0.022UF 50V Z F TA26 S
		C507	0CN1040K948	0.1UF 50V Z F TA26 D
		C508	0CN1040K948	0.1UF 50V Z F TA26 D
		C509	0CN223AK948	0.022UF 50V Z F TA26 S
		C512	0CN1810K518	180P 50V K B TA26
		C513	0CN1040K948	0.1UF 50V Z F TA26 D
		C514	0CC1800K415	18P 50V J NPO TS
		C515	0CC1800K415	18P 50V J NPO TS
		C516	0CN223AK948	0.022UF 50V Z F TA26 S
		C518	0CC3300K415	33P 50V J NPO TP
		C519	0CC3900K415	39P 50V J NPO TP
		C520	0CN1020K518	1000P 50V K B TA26
		C521	0CN223AK948	0.022UF 50V Z F TA26 S
		C522	0CN1030F678	0.01M 16V M Y TA26
		C524	0CE3364F638	33M SRA 16V M FM5 TP(5)
		C525	0CE4764F638	47M SRA/SS 16V M FM5 TP(5)
		C526	0CE4764H638	47M SRA 25V M FM5 TP(5)
		C527	0CN1810K518	180P 50V K B TA26
		C528	0CN1030F678	0.01M 16V M Y TA26
		C529	0CN1040K948	0.1UF 50V Z F TA26 D
		C530	0CE1064F638	10M SRA 16V M FM5 TP(5)
		C532	0CN223AK948	0.022UF 50V Z F TA26 S
		C533	0CN1020K518	1000P 50V K B TA26
		C534	0CE4754K638	4.7M SRA 50V M FM5 TP(5)
		C535	0CE4754K638	4.7M SRA 50V M FM5 TP(5)
		C536	0CN1030F678	0.01M 16V M Y TA26
		C537	0CN1030F678	0.01M 16V M Y TA26
		C541	0CE4754K638	4.7M SRA 50V M FM5 TP(5)
		C542	0CN6810K518	680P 50V K B TA26
		C543	0CN2220F668	2200P 16V M X TA26
		C544	0CQ4732K409	0.047UF S 50V J PE TP

S	AL	LOCA.NO	PART NO(GS)	SPECIFICATION
		C545	0CN1040K948	0.1UF 50V Z F TA26 D
		C546	0CE4764F638	47M SRA/SS 16V M FM5 TP(5)
		C551	0CC3332K409	0.033UF S 50V J PE TP
		C552	0CN1030F678	0.01M 16V M Y TA26
		C556	0CN1030F678	0.01M 16V M Y TA26
		C557	0CN1030F678	0.01M 16V M Y TA26
		C561	0CE4764C638	47M SRA 6.3V M FM5 TP(5)
		C564	0CN3310K518	330P 50V K B TA26
		C567	0CN1020K518	1000P 50V K B TA26
		C570	0CC1800K415	18P 50V J NPO TS
		C571	0CC1800K415	18P 50V J NPO TS
		C574	0CN1020K518	1000P 50V K B TA26
		C575	0CN1020K518	1000P 50V K B TA26
		C576	0CC1400K415	14PF 50V J NPO TR
		C577	0CC1400K415	14PF 50V J NPO TR
		C581	0CN1030F678	0.01M 16V M Y TA26
		C582	0CN1030F678	0.01M 16V M Y TA26
		C588	0CE4754K638	4.7M SRA 50V M FM5 TP(5)
		C589	0CX2200K408	22P 50V J SL TP26
		C596	0CN223AK948	0.022UF 50V Z F TA26 S
		C5P1	0CE4764F638	47M SRA/SS 16V M FM5 TP(5)
		C5P2	0CE4775C618	470UF SR,SV 6.3V M FL TP 5
		C5S1	0CX4300K408	43P 50V J SL TA26
		C5S2	0CN223AK948	0.022UF 50V Z F TA26 S
		C5W1	0CE2274C638	220M SRA 6.3V M FM5 TP(5)
		C701	0CE4754K638	4.7M SRA 50V M FM5 TP(5)
		C702	0CE1064F638	10M SRA 16V M FM5 TP(5)
		C703	0CE4754K638	4.7M SRA 50V M FM5 TP(5)
		C704	0CE4764C638	47M SRA 6.3V M FM5 TP(5)
		C705	0CN1030F678	0.01M 16V M Y TA26
		C706	0CE477CF638	470UF SHL TYPE 16V M FM5 TP 5
		C707	0CN1030F678	0.01M 16V M Y TA26
		C710	0CX4300K408	43P 50V J SL TA26
		C712	0CX5R60K508	5.6PF 50V K SL TA26
		C713	0CE4764C638	47M SRA 6.3V M FM5 TP(5)
		C714	0CN1030F678	0.01M 16V M Y TA26
		C7M1	0CN1010K418	100PF 50V J B TA26
		C7M2	0CE4764F638	47M SRA/SS 16V M FM5 TP(5)
		C7M3	0CX4300K408	43P 50V J SL TA26
		C7M5	0CE1064F638	10M SRA 16V M FM5 TP(5)
		C7M6	0CX2700K408	27P 50V J SL TA26
		C901	0CN1020K518	1000P 50V K B TA26
		C902	0CE477CF638	470UF SHL TYPE 16V M FM5 TP 5
		C903	0CN1020K518	1000P 50V K B TA26
		C904	0CN1020K518	1000P 50V K B TA26
		C905	0CE1064F638	10M SRA 16V M FM5 TP(5)
		C906	0CE1064F638	10M SRA 16V M FM5 TP(5)
		C908	0CN1020K518	1000P 50V K B TA26
		C909	0CX6800K408	68P 50V J SL TA26
		C942	0CE1054K636	1.0U SRA 50V M FM5 BP TP(D)
		C951	0CE4764F638	47M SRA/SS 16V M FM5 TP(5)
		C952	0CN1040K948	0.1UF 50V Z F TA26 D
		C956	0CE1044K638	0.1M SRA 50V M FM5 TP(5)
		C9A1	0CN1020K518	1000P 50V K B TA26
DIODE				
		BD101	0DD160000DA	S1WBA60(1A 600V) SHIDENKEN
		D102	0DD010009CA	EG01CW(R-FORM 5MM) TP SANKEN
		D102	0DD221009AA	ERA22-10 KFLB,TP,R T/P,FUJI
		D104	0DD010009AC	EU01W(R-FORM) TP SANKEN
		D105	0DD010009AC	EU01W(R-FORM) TP SANKEN
		D106	0DR810040BA	ERC81-004L22 BK FUJI DO201AD 4

MODEL: AC480Y 8PL1L

S	AL	LOCA.NO	PART NO(GS)	SPECIFICATION
		D109	0DD400000AD	RU4YXLF(015-305) M20 SANKEN
		D151	0DD133009AA	1SS133 DETECT,SW TP
		D152	0DD400309AB	IN4003A(1SR35-200A)5M/M TP ROH
		D154	0DD400309AB	IN4003A(1SR35-200A)5M/M TP ROH
		D155	0DD400309AB	IN4003A(1SR35-200A)5M/M TP ROH
		D301	0DD133009AA	1SS133 DETECT,SW TP
		D502	0DD133009AA	1SS133 DETECT,SW TP
		D509	0DD133009AA	1SS133 DETECT,SW TP
		D902	0DD133009AA	1SS133 DETECT,SW TP
		D903	0DD133009AA	1SS133 DETECT,SW TP
		D904	0DD133009AA	1SS133 DETECT,SW TP
		DJ01	0DD133009AA	1SS133 DETECT,SW TP
		DJ02	0DD133009AA	1SS133 DETECT,SW TP
		DJ08	0DD133009AA	1SS133 DETECT,SW TP
		DJ10	0DD133009AA	1SS133 DETECT,SW TP
		DJ13	0DD133009AA	1SS133 DETECT,SW TP
		DJ16	0DD133009AA	1SS133 DETECT,SW TP
DISPLAY TUBE				
		SEG5Q1	514-518E	LTG9606M-R2 LITEON PAL 15
FUSE				
		OR F101	585-011C	T 1.6A 250V S506
		F101	585-011T	1600MA 250 V 5 2X20 CY/GL SEMK
FILTER				
		L102	616-145H	SHT LFS2020V4-04350
		OR L102	616-145J	BLUEJON V-04350
IC				
		IC101	0ISK615300A	STR-G6153T 5PIN FM CUT BK PWM
		IC103	0IKE431000A	KIA431 3 PIN TP
		OR IC103	0ISS431000A	KA431AZ (LM431AZ)
		IC301	0ISA715910A	LA71591M 100QFP BK AVCP 1CHIP
		IC501	0IGS397765A	GMS3977RAA65F 100QFP BK MICOM
		OR IC501	0IH397729A	HD3977RC29F 100QFP BK MICOM AF
		IC502	0ISS308200A	KA3082 10-SIP BK MOTOR DRIVE
		IC503	0IAL241600B	AT24C16-10PC 8D EEPROM 16K
		IC504	0IKE703100A	KIA7031P 3P 3.1V RESET(TAPING)
		OR IC504	0ISS753100A	KA7531Z TO-92 3P 3.1V RESET
		IC505	0IKE704200B	KIA7042P 3P 4.2V RESET(TAPING)
		OR IC505	0ISS754200A	KA7542Z RESET TO92 TP 4.2V
COIL				
		71R	636-004C	BEAD CORE BFS3550R2FD8,R T/P
		OR B6908RA	1	BEAD CORE BFS3550R2FD8,R T/P
		L103	633-088G	CHOCK(22MH) TP 5MM
		L104	633-088G	CHOCK(22MH) TP 5MM
		L301	0LR0102K0P5	L7.5N OEL 100UH 10% TP 4.8X4.0
		L302	0LA0562K018	56M K 2.3X3.4 L5 TP
		L303	0LA0332K018	33M K 2.3X3.4 L5 TP
		L304	0LR1000K0P5	L7.5N OEL 100UH 10% TP 4.8X4
		L306	0LR1000K0P5	L7.5N OEL 100UH 10% TP 4.8X4
		L307	0LR1000K0P5	L7.5N OEL 100UH 10% TP 4.8X4
		L308	0LA0122K018	12M K 2.3X3.4 L5 TP
		L309	0LR1000K0P5	L7.5N OEL 100UH 10% TP 4.8X4
		L401	0LA0821K018	8.2M K 2.3X3.4 L5 TP
		L402	0LR6801J045	6800U J 6X7 L5 TP
		L405	0LR0102K0P5	L7.5N OEL 10UH 10% TP 4.8X4.0

MODEL: AC480Y 8PL1L

S	AL	LOCA.NO	PART NO(GS)	SPECIFICATION
		L502	0LR1000K0P5	L7.5N OEL 100UH 10% TP 4.8X4
		L505	0LR1000K0P5	L7.5N OEL 100UH 10% TP 4.8X4
		L506	635-027C	EL0405RA SKI150G-3 K-TDK 15UH
		L507	0LA1000K018	100M K 2.3X3.4 L5 TP
		L5P0	0LR3300K035	330M K 6X6 L5 TP
		L5S1	0LA0332K018	33M K 2.3X3.4 L5 TP
		L5W1	0LR1000K0P5	L7.5N OEL 100UH 10% TP 4.8X4
		L701	0LR1000K0P5	L7.5N OEL 100UH 10% TP 4.8X4
		L702	0LR0102K0P5	L7.5N OEL 10UH 10% TP 4.8X4.0
		L703	0LR0102K0P5	L7.5N OEL 10UH 10% TP 4.8X4.0
		L704	0LA0821K018	8.2M K 2.3X3.4 L5 TP
		L705	0LR1000K0P5	L7.5N OEL 100UH 10% TP 4.8X4
		L901	0LA1000K018	100M K 2.3X3.4 L5 TP
		L902	0LA1000K018	100M K 2.3X3.4 L5 TP
		L904	0LA1000K018	100M K 2.3X3.4 L5 TP
		L906	0LA1000K018	100M K 2.3X3.4 L5 TP
		L907	636-004C	BEAD CORE BFS3550R2FD8,R T/P
		TL401	633-032K	BIAC OSC,1CHIP 5V(KS-75M)
LED				
		LD5W1	0DL160319AA	LTL-16KEE-031 TP LITEON RED D=
CIRCUIT BOARD ASSEMBLY				
		PBM00	6871R-1148X	MAIN AC480Y 8PL1L
		PBT00	6871R-1154A	CLK,PAL
TRANSFORMER				
		T101	642-023M	SW TRANS EER2828 WIDE X-PJT
TRANSISTOR				
OR		Q151	0TR320309AA	KTC3203-Y (KTC2120) TP KEC 10P
		Q152	0TR320309AA	KTC3203-Y (KTC2120) TP KEC 10P
		Q153	0TR280400AA	KTC2804-Y BK KEC TO126
		Q158	0TR126809BA	KTA1268-BL TP KEC
		Q158	0TR709009AE	KSA7090-Y TP SAMSUNG TO-92
		Q159	0TR127309AA	KTA1273-TP-Y (KTA966A)KEC
		Q160	0TR101009AF	KRC101M(TO92M),4.7-4.7,KEC
		Q161	0TR319909AF	KTC3199-BL MINI TP KEC
		Q162	0TR127309AA	KTA1273-TP-Y (KTA966A)KEC
		Q164	0TR127309AA	KTA1273-TP-Y (KTA966A)KEC
		Q165	0TR101009AF	KRC101M(TO92M),4.7-4.7,KEC
		Q301	0TR319909AF	KTC3199-BL MINI TP KEC
		Q302	0TR319909AF	KTC3199-BL MINI TP KEC
		Q303	0TR126709AC	KTA1267-GR MINI TP KEC
		Q304	0TR319909AF	KTC3199-BL MINI TP KEC
		Q305	0TR126709AC	KTA1267-GR MINI TP KEC
		Q3A1	0TR319909AF	KTC3199-BL MINI TP KEC
		Q3A2	0TR319909AF	KTC3199-BL MINI TP KEC
		Q401	0TR126709AC	KTA1267-GR MINI TP KEC
		Q402	0TR126709AC	KTA1267-GR MINI TP KEC
		Q403	0TR319909AF	KTC3199-BL MINI TP KEC
		Q404	0TR319909AF	KTC3199-BL MINI TP KEC
		Q405	0TR320309AA	KTC3203-Y (KTC2120) TP KEC 10P
		Q501	0TR319909AF	KTC3199-BL MINI TP KEC
		Q503	0TR126709AC	KTA1267-GR MINI TP KEC
		Q514	0TR103009AE	KRC103M-TP (KRC1203) KEC
		Q515	0TR103009AE	KRC103M-TP (KRC1203) KEC
		Q5P0	0TR319909AF	KTC3199-BL MINI TP KEC
	Q5P1	0TR319909AF	KTC3199-BL MINI TP KEC	
	Q5P2	0TR319909AF	KTC3199-BL MINI TP KEC	

RUN DATE : 99.05.18

S	AL	LOCA.NO	PART NO(GS)	SPECIFICATION
		Q5P3	0TR319909AF	KTC3199-BL MINI TP KEC
		Q5P4	0TR103009AE	KRC103M-TP (KRC1203) KEC
		Q5P5	0TR103009AE	KRC103M-TP (KRC1203) KEC
		Q5P6	0TR101009AF	KRC101M(TO92M),4.7-4.7,KEC
		Q5P7	0TR101009AF	KRC101M(TO92M),4.7-4.7,KEC
		Q5P8	0TR101009AF	KRC101M(TO92M),4.7-4.7,KEC
		Q5P9	0TR101009AF	KRC101M(TO92M),4.7-4.7,KEC
		Q5Q0	0TR101009AF	KRC101M(TO92M),4.7-4.7,KEC
		Q5Q1	0TR101009AF	KRC101M(TO92M),4.7-4.7,KEC
		Q5Q2	0TR101009AF	KRC101M(TO92M),4.7-4.7,KEC
		Q5S2	0TR319909AF	KTC3199-BL MINI TP KEC
		Q5W2	0TR103009AE	KRC103M-TP (KRC1203) KEC
		Q701	0TR126709AC	KTA1267-GR MINI TP KEC
		Q902	0TR319909AF	KTC3199-BL MINI TP KEC
		Q903	0TR103009AE	KRC103M-TP (KRC1203) KEC
		Q906	0TR319909AF	KTC3199-BL MINI TP KEC
		Q908	0TR103009AE	KRC103M-TP (KRC1203) KEC
		Q909	0TR103009AF	KRA103M-TP (KRA2203) KEC

RESISTOR

		R101	614-007R	2.7 OHM 2 W 5% TR RWR
		R102	0RS1003K619	100K OHM 2 W 5% TR
		R103	0RD0821F608	8.2 1/6W 5 TA26
		R104	0RS5602K619	56KOHM 2 W 5% TR
		R109	0RS0350K619	0.35 OHM 2 W 5% TR
		R116	0RD3300F608	330 1/6W 5 TA26
		R117	0RD2201F608	2.2K 1/6W 5 TA26
		R118	0RD1001F608	1.0K 1/6W 5 TA26
		R119	0RN3301F408	3.3K 1/6W 1 TA26
		R120	0RN2701F408	2.70K 1/6W 1% TA26
		R121	0RD1800F608	180 1/6W 5 TA26
		R151	0RD1201F608	1.2K 1/6W 5 TA26
		R152	0RD1201F608	1.2K 1/6W 5 TA26
		R154	0RD1001F608	1.0K 1/6W 5 TA26
		R155	0RD2702F608	27K 1/6W 5 TA26
		R156	0RD1002F608	10K 1/6W 5 TA26
		R157	0RD1001F608	1.0K 1/6W 5 TA26
		R158	0RD2700F608	270 1/6W 5 TA26
		R159	0RD3300F608	330 1/6W 5 TA26
		R161	0RD2700F608	270 1/6W 5 TA26
		R162	0RD3300F608	330 1/6W 5 TA26
		R169	0RD1001F608	1.0K 1/6W 5 TA26
		R170	0RD1001F608	1.0K 1/6W 5 TA26
		R171	0RD3901F608	3.9K 1/6W 5 TA26
		R172	0RD1202F608	12K 1/6W 5 TA26
		R201	0RD4700F608	470 1/6W 5 TA26
		R302	0RD1002F608	10K 1/6W 5 TA26
		R303	0RD1802F608	18K 1/6W 5 TA26
		R304	0RD1002F608	10K 1/6W 5 TA26
		R305	0RD1201F608	1.2K 1/6W 5 TA26
		R306	0RD3300F608	330 1/6W 5 TA26
		R307	0RD3300F608	330 1/6W 5 TA26
		R308	0RD2701F608	2.7K 1/6W 5 TA26
		R309	0RD6800F608	680 1/6W 5 TA26
		R310	0RD1001F608	1.0K 1/6W 5 TA26
		R311	0RD4701F608	4.7K 1/6W 5 TA26
		R312	0RD1801F608	1.8K 1/6W 5 TA26
		R313	0RD3300F608	330 1/6W 5 TA26
		R316	0RD1500F608	150 1/6W 5 TA26
		R317	0RD1203F608	120K 1/6W 5 TA26
		R318	0RD4701F608	4.7K 1/6W 5 TA26
		R319	0RD1001F608	1.0K 1/6W 5 TA26

S	AL	LOCA.NO	PART NO(GS)	SPECIFICATION
		R321	0RD1501F608	1.5K 1/6W 5 TA26
		R322	0RD8201F608	8.2K 1/6W 5 TA26
		R323	0RD5601F608	5.6K 1/6W 5 TA26
		R324	0RD1002F608	10K 1/6W 5 TA26
		R325	0RD1001F608	1.0K 1/6W 5 TA26
		R326	0RD2701F608	2.7K 1/6W 5 TA26
		R333	0RD5600F608	560 1/6W 5 TA26
		R335	0RD1802F608	18K 1/6W 5 TA26
		R337	0RD1802F608	18K 1/6W 5 TA26
		R338	0RD2200F608	220 1/6W 5 TA26
		R340	0RD1802F608	18K 1/6W 5 TA26
		R341	0RD3301F608	3.3K 1/6W 5 TA26
		R349	0RD5601F608	5.6K 1/6W 5 TA26
		R350	0RD4700F608	470 1/6W 5 TA26
		R3A1	0RD2201F608	2.2K 1/6W 5 TA26
		R3A2	0RD4702F608	47K 1/6W 5 TA26
		R3A3	0RD1001F608	1.0K 1/6W 5 TA26
		R3B1	0RD4701F608	4.7K 1/6W 5 TA26
		R402	0RD2204F608	2.2M 1/6W 5 TA26
		R403	0RD6801F608	6.8K 1/6W 5 TA26
		R404	0RD2700F608	270 1/6W 5 TA26
		R406	0RD2701F608	2.7K 1/6W 5 TA26
		R407	0RD2202F608	22K 1/6W 5 TA26
		R408	0RD2201F608	2.2K 1/6W 5 TA26
		R409	0RD4701F608	4.7K 1/6W 5 TA26
		R410	0RD1002F608	10K 1/6W 5 TA26
		R411	0RD2202F608	22K 1/6W 5 TA26
		R412	0RD1801F608	1.8K 1/6W 5 TA26
		R413	0RD8201F608	8.2K 1/6W 5 TA26
		R414	0RD1202F608	12K 1/6W 5 TA26
		R415	0RD3303F608	330K 1/6W 5 TA26
		R416	0RD1500F608	150 1/6W 5 TA26
		R417	0RD1001F608	1.0K 1/6W 5 TA26
		R418	0RD2702F608	27K 1/6W 5 TA26
		R419	0RD0472F608	47 1/6W 5 TA26
		R420	0RD1001F608	1.0K 1/6W 5 TA26
		R421	0RD0221F608	2.2 1/6W 5 TA26
		R422	0RD5600F608	560 1/6W 5 TA26
		R424	0RD2700F608	270 1/6W 5 TA26
		R425	0RD4702F608	47K 1/6W 5 TA26
		R427	0RD4702F608	47K 1/6W 5 TA26
		R428	0RD3901F608	3.9K 1/6W 5 TA26
		R430	0RD3901F608	3.9K 1/6W 5 TA26
		R431	0RD4701F608	4.7K 1/6W 5 TA26
		R490	0RD4702F608	47K 1/6W 5 TA26
		R491	0RD1202F608	12K 1/6W 5 TA26
		R501	0RD1000F608	100 1/6W 5 TA26
		R502	0RD1000F608	100 1/6W 5 TA26
		R504	0RD1001F608	1.0K 1/6W 5 TA26
		R505	0RD1001F608	1.0K 1/6W 5 TA26
		R506	0RD1001F608	1.0K 1/6W 5 TA26
		R507	0RD1001F608	1.0K 1/6W 5 TA26
		R508	0RD4701F608	4.7K 1/6W 5 TA26
		R509	0RD1202F608	12K 1/6W 5 TA26
		R510	0RD2201F608	2.2K 1/6W 5 TA26
		R511	0RD1001F608	1.0K 1/6W 5 TA26
		R512	0RD1001F608	1.0K 1/6W 5 TA26
		R513	0RD1003F608	100K 1/6W 5 TA26
		R515	0RD2700F608	270 1/6W 5 TA26
		R517	0RD1004F608	1.0M 1/6W 5 TA26
		R518	0RD5600F608	560 1/6W 5 TA26
		R519	0RD2702F608	27K 1/6W 5 TA26

MODEL: AC480Y 8PL1L

RUN DATE : 99.05.18

S	AL	LOCA.NO	PART NO(GS)	SPECIFICATION
		R521	0RD3301F608	3.3K 1/6W 5 TA26
		R522	0RD1001F608	1.0K 1/6W 5 TA26
		R523	0RD1502F608	15K 1/6W 5 TA26
		R524	0RF0681J619	6.8 OHM 1 W 5% TR
		R525	0RD5601F608	5.6K 1/6W 5 TA26
		R526	0RD5601F608	5.6K 1/6W 5 TA26
		R527	0RD5600F608	560 1/6W 5 TA26
		R528	0RD1002F608	10K 1/6W 5 TA26
		R529	0RD1002F608	10K 1/6W 5 TA26
		R531	0RD1002F608	10K 1/6W 5 TA26
		R534	0RD1004F608	1.0M 1/6W 5 TA26
		R535	0RD4703F608	470K 1/6W 5 TA26
		R542	0RD2201F608	2.2K 1/6W 5 TA26
		R543	0RD1000F608	100 1/6W 5 TA26
		R544	0RD4701F608	4.7K 1/6W 5 TA26
		R545	0RD2201F608	2.2K 1/6W 5 TA26
		R546	0RD5601F608	5.6K 1/6W 5 TA26
		R547	0RD1202F608	12K 1/6W 5 TA26
		R548	0RD1003F608	100K 1/6W 5 TA26
		R550	0RD2200F608	220 1/6W 5 TA26
		R553	0RD2200F608	220 1/6W 5 TA26
		R555	0RD2200F608	220 1/6W 5 TA26
		R556	0RD2202F608	22K 1/6W 5 TA26
		R557	0RD2702F608	27K 1/6W 5 TA26
		R558	0RD2202F608	22K 1/6W 5 TA26
		R559	0RD4701F608	4.7K 1/6W 5 TA26
		R560	0RD4701F608	4.7K 1/6W 5 TA26
		R561	0RD5600F608	560 1/6W 5 TA26
		R562	0RD5600F608	560 1/6W 5 TA26
		R563	0RD1002F608	10K 1/6W 5 TA26
		R564	0RD2702F608	27K 1/6W 5 TA26
		R567	0RD6800F608	680 1/6W 5 TA26
		R568	0RD6803F608	680K 1/6W 5 TA26
		R569	0RD1004F608	1.0M 1/6W 5 TA26
		R570	0RD4701F608	4.7K 1/6W 5 TA26
		R575	0RD4701F608	4.7K 1/6W 5 TA26
		R576	0RD4701F608	4.7K 1/6W 5 TA26
		R577	0RD4701F608	4.7K 1/6W 5 TA26
		R578	0RD4701F608	4.7K 1/6W 5 TA26
		R579	0RD5602F608	56K 1/6W 5 TA26
		R581	0RD6802F608	68K 1/6W 5 TA26
		R583	0RD1002F608	10K 1/6W 5 TA26
		R586	0RD2201F608	2.2K 1/6W 5 TA26
		R589	0RD1004F608	1.0M 1/6W 5 TA26
		R590	0RD1001F608	1.0K 1/6W 5 TA26
		R591	0RD4700F608	470 1/6W 5 TA26
		R592	0RD1000F608	100 1/6W 5 TA26
		R5B1	0RD1001F608	1.0K 1/6W 5 TA26
		R5B3	0RD1001F608	1.0K 1/6W 5 TA26
		R5B4	0RD1001F608	1.0K 1/6W 5 TA26
		R5B5	0RD1000F608	100 1/6W 5 TA26
		R5C1	0RD1001F608	1.0K 1/6W 5 TA26
		R5C2	0RD1001F608	1.0K 1/6W 5 TA26
		R5C3	0RD1001F608	1.0K 1/6W 5 TA26
		R5C4	0RD1001F608	1.0K 1/6W 5 TA26
		R5C5	0RD1001F608	1.0K 1/6W 5 TA26
		R5C6	0RD1001F608	1.0K 1/6W 5 TA26
		R5C7	0RD1001F608	1.0K 1/6W 5 TA26
		R5C9	0RD1002F608	10K 1/6W 5 TA26
		R5E7	0RD1002F608	10K 1/6W 5 TA26
		R5E8	0RD1002F608	10K 1/6W 5 TA26
		R5K1	0RD1801F608	1.8K 1/6W 5 TA26

MODEL: AC480Y 8PL1L

S	AL	LOCA.NO	PART NO(GS)	SPECIFICATION
		R5K3	0RD2201F608	2.2K 1/6W 5 TA26
		R5P0	0RD5600F608	560 1/6W 5 TA26
		R5P1	0RD5600F608	560 1/6W 5 TA26
		R5P2	0RD5600F608	560 1/6W 5 TA26
		R5P3	0RD5600F608	560 1/6W 5 TA26
		R5Q3	0RD3300F608	330 1/6W 5 TA26
		R5Q4	0RD3300F608	330 1/6W 5 TA26
		R5Q5	0RD3300F608	330 1/6W 5 TA26
		R5Q6	0RD3300F608	330 1/6W 5 TA26
		R5Q7	0RD3300F608	330 1/6W 5 TA26
		R5Q8	0RD3300F608	330 1/6W 5 TA26
		R5Q9	0RD3300F608	330 1/6W 5 TA26
		R5S2	0RD6801F608	6.8K 1/6W 5 TA26
		R5S3	0RD3300F608	330 1/6W 5 TA26
		R5T2	0RD1801F608	1.8K 1/6W 5 TA26
		R5T3	0RD1501F608	1.5K 1/6W 5 TA26
		R5T4	0RD2701F608	2.7K 1/6W 5 TA26
		R5U0	0RD1800F608	180 1/6W 5 TA26
		R5U1	0RD1800F608	180 1/6W 5 TA26
		R5U2	0RD3300F608	330 1/6W 5 TA26
		R5V1	0RD2201F608	2.2K 1/6W 5 TA26
		R5V2	0RD1501F608	1.5K 1/6W 5 TA26
		R5W1	0RD2200F608	220 1/6W 5 TA26
		R704	0RD4700F608	470 1/6W 5 TA26
		R706	0RD2200F608	220 1/6W 5 TA26
		R707	0RD2200F608	220 1/6W 5 TA26
		R7M1	0RD1001F608	1.0K 1/6W 5 TA26
		R7M3	0RD1001F608	1.0K 1/6W 5 TA26
		R7M5	0RD2200F608	220 1/6W 5 TA26
		R901	0RD0752F608	75 1/6W 5 TA26
		R902	0RD0752F608	75 1/6W 5 TA26
		R903	0RD5600F608	560 1/6W 5 TA26
		R904	0RD5600F608	560 1/6W 5 TA26
		R905	0RD5600F608	560 1/6W 5 TA26
		R906	0RD5600F608	560 1/6W 5 TA26
		R921	0RD8200F608	820 1/6W 5 TA26
		R922	0RD1001F608	1.0K 1/6W 5 TA26
		R931	0RD1803F608	180K 1/6W 5 TA26
		R932	0RD2203F608	220K 1/6W 5 TA26
		R936	0RD1001F608	1.0K 1/6W 5 TA26
		R943	0RD1501F608	1.5K 1/6W 5 TA26
		W337	0RD5601F608	5.6K 1/6W 5 TA26